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# The Role of Ownership Concentration and Dividend Policy on Firm Performance: Evidence from an Emerging Market of Pakistan

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**Aim** - The study determines the role of ownership concentration and dividend policy on the firm performance of chemical sector firms of Pakistan.

**Design/Methodology**- This research used the secondary data that has been collected from the annual reports of the firms for the period of 2012 to 2017. This study used the Generalized Least Squares Model.

**Findings**- The research shows that ownership concentration is positively associated with firm performance. It is stated that a large number of shareholders can solve agency issues among managers and shareholders. Dividend policy is also a significant positive impact on firm performance. Leverage and tangibility likewise negatively affect firm performance.

**Practical Implications**- These results potentially can be relevant for policymakers and academic research as well as also helpful for managers and policymakers.

## Introduction

In the last couple of years, several vital issues are being studied in the field of finance, such as corporate governance (Fu, 2019). Corporate ownership structure, as well as Board decisions, are the vital factors related to this topic. To examine and control the firm's performance, Aslam, Haron, and Tahir (2019) and firm value Cuñat, Gine, and Guadalupe (2012), corporate governance is employed as a good factor.

The code of corporate governance is treated as a fundamental element, especially in developing countries. The code of corporate governance of Pakistan are determined by the Security and Exchange Commission of Pakistan (SECP) in March 2002 (Kazi, Arain, & Sahetiya, 2018). It is revealed that ownership structure is a crucial element and plays a vital role in firm performance (Shah, Xiao, & Quresh, 2019). In the study of (Jensen & Meckling, 1976), it was revealed that firm performance and ownership structure are linked with agency theory. According to this theory, it resolves the agency issues, or it lessens the irreconcilable circumstances among the managers and shareholders. Some studies said that corporate governance structure is divided into two parts internal and external corporate administration.

The study will not only investigate the aspects related to the shareholding, but we also examine the dividend policy and their impact on firms' performance. Managers and shareholders are interested in such decisions because dividend reduces the agency issues among managers and shareholders as well as it improves the firm valuation. In this regard, Sáez and Gutiérrez (2015) find out that the most vital variable related to the firm value and firm performance is dividend policy.

Economic conditions, social issues, institutional cultures, and behavioral traits are widely different in Asian economies with related to western economies, that's why western research is not applied in Asian economies (Sun, Zhao, & Yang, 2010; Van Essen, van Oosterhout, & Carney, 2012) because Asian countries work in an institutional context to enhance and boost the board structure and functions that are generally useful for the emerging markets.

Many studies are conducted in Asian economies related to dividend policy, possession structure, and fiscal enactment. Still, in the circumstances of Pakistan, it is unique because of two reasons. First, businesses in Pakistan are mostly owned by family groups; on the other hand, ownership is usually concentrated within a few shareholders as compared to Japan, etc. Although, the concentration of ownership is more in China when we compare it with Pakistani firms, the nature and sort of it completely different. As in China, state ownership is usually the dominant factor in large companies (Bryson, Forth, & Zhou, 2014).

Furthermore, studies in China employed the concentrated factor as the number of stocks possessed by the top stockholders. Ownership concentration is presented by the proportions of shareholding held by ten prime shareholders. But in this study, it is depicted by shareholding held by the large five shareholders. If a firm has a high concentration of their possession, it leads to the efficient control of the management and enhances firm performance. Second, we can also observe the overall business environment is fragile while there are governance issues as well. Besides, we remark that the indexes linked to the effectiveness of government and regulation quality are harmful as per World Bank in the last decade.

However, this research contributes in different ways. Firstly, similar researches have been carried out in developed markets but still unidentified in developing markets such as Pakistan. Second, the results of this study will assist the management in making decisions concerning overall direction & financial policies with the aim of maximization the firm performance. Third, this study considers persistence and adjustment by using panel data analysis. However, the research is conducted to fill the gap in examining the relationship between ownership concentration, dividend policy, and organizational performance in the emerging market of Pakistan.

## Literature Review

### Ownership Concentration and Firm Performance

Corporate administration is a significant component in the field of finance. Ownership concentration can be defined as the most significant number of block holder (Murtaza & Azam, 2019). It considered an essential indicator of corporate governance mechanisms to reduce agency issues. It is concerned with agency theory that resolves the conflicts of interest among managers and shareholders (Shleifer & Vishny, 1986) and can control and monitor the team (Balsmeier & Czarnitzki, 2017; Nguyen, Locke, & Reddy, 2015) as well as can improve firm performance and valuation. A study by (Filatotchev, Jackson, & Nakajima, 2013) extended the use of corporate governance mechanisms across multiple regions in an institutional way. The effect of ownership concentration and firm performance is found mixed. (Ciftci, Tatoglu, Wood, Demirbag, & Zaim, 2019) measures the linkage of corporate governance and firm performance of Turkey. This stated that ownership concentration is held by families and manage better performance. In the same vein, a study by Saini and Singhania (2018) measures such association of Indian firms and depicted a positive relationship between ownership concentration and firm performance. These expectations can be useful for monitoring or controlling the team. Empirical findings of (Young, Peng, Ahlstrom, Bruton, & Jiang, 2008) stated a negative influence between ownership concentration and performance and (Thomsen & Pedersen, 2000; Tuschke & Gerard Sanders, 2003) stated a curvilinear association. So, it is expected that:

*H1: There is a significant relationship between ownership concentration and firm financial performance.*

### Dividend Policy and Firm Performance

There is a wide range of researches on dividend policies and firm performance. Previous studies have examined that dividend policy is positively associated with firm performance. For instance, a study by Dogan and Topal (2014) examined the empirical link between dividend policy and firms' financial performance in the Istanbul Stock Exchange. The results showed that dividend policy influenced companies' performance and found a statistically positive association between dividend payments and performance indicators (Tobin's q). Similarly, another research by Kajola et al. (2015) documented that the dividend payout ratio is a positive effect on firm financial performance. Many studies are supported by the positive relationship between dividend policy and firm performance (Farrukh, Irshad, Shams Khakwani, Ishaque, & Ansari, 2017; Mrabet & Boujjat, 2016).

*H2: There is a significant relationship between dividend policy and firm financial performance.*

### Leverage and Firm Performance

Leverage is an essential element to measure firm performance. It controls the financing strategies of the firm. Leverage or financing associated to which companies make use of their money and borrowings to increase firm profitability. It is the proportion of debt to equity. The leverage decision is a concern to managerial decisions because it has a significant impact on shareholder's risk and returns as well as also to the firm valuation (Omondi & Muturi, 2013). According to (Alkhatib, 2012), leverage is a source of financing to continue business activities.

Many researchers from all over the world have studied, particularly on the capital structure, to measure the impact of debt policy and firm performance. Some studies found a positive impact on capital structure and firm performance, and some studies found adverse effects. Firstly, financial leverage can negatively affect firm performance because leverage can be treated as a tool for disciplining management. For instance, the findings of (Ahmed Sheikh & Wang, 2013; Jeleel & Olayiwola, 2017; Mireku, Mensah, & Ogoe, 2014; Olokoyo, 2013) stated a negative impact on leverage and firm performance. In contrast, a study by Ali (2014) revealed a linear association with leverage and performance. While, some researches stated that leverage is the positive impact of firm performance (Simerly & Li, 2000; Weill, 2008) According to the agency theory, the fundamental idea

behind positive or negative cost theory depends on the relationship among shareholders and managers and debt-holders and shareholders (Jensen & Meckling, 1976).

*H3: There is a significant relationship between leverage and firm performance.*

## **Liquidity and Firm Performance**

To pay the company obligations, liquidity management is considered as an essential element for every business. Different liquidity ratios, such as the current ratio, quick ratio, and acid-test ratio can be used for liquidity management that has a high impact on a firm's profitability. A study by Kaur and Silky (2013) examined the impact of liquidity and firm profitability. After the analysis, this study depicted that there is a negative relationship between liquidity and profitability. Another research by Malik and Ahmed (2013) also demonstrated that liquidity improved the firm performance and valuation. Some studies (Alagathurai, 2013; Ben-Caleb, Olubukunola, & Uwuwigbe, 2013) have documented that there is a significant positive impact of quick ratio's liquidity and return on assets. Also, Zygmunt (2013) measured the liquidity impact on firm profitability. The final results of this study showed that liquidity has a significant effect on the profitability of IT companies. It was also concluded that it enhance the growth of the inventory sale period, collection period & account payables period. Moreover, Ismail (2016) also constructed a significant positive relationship of liquidity on firm profitability.

*H4: There is a significant relationship between liquidity and firm financial performance.*

## **Board size and Firm Performance**

In general, the board of directors' size is a governance mechanism that indicates the total number of directors in a firm board. This may consist of both executives as well as on the non-executive board of directors. Hence, the size of the board of directors may vary for each board. Based on Mohan and Chandramohan (2018), the majority of the research is oriented towards board size, which treated as an essential dimension of corporate governance mechanism and firm performance. Previous studies revealed the large number of board of directors can enhance the firm performance and companies' growth. According to Agyemang Badu and Appiah (2017), agency perspective can control and monitor the board of directors very effectively.

*H5: There is a significant relationship between board size and firm financial performance.*

## **Firm size and Firm Performance**

Research by Hirdinis (2019) clarified that firm size is an essential element to determine firm valuation and performance. It is used to examine the size and working capacity of the business. Generally, firm size is measured by taking natural logarithm of total assets of the business. Previous studies have stated mixed findings of firm size and firm performance. A Nigerian study by Aduralere Opeyemi (2019), showed a positive relationship of company size and company's performance. However, other researches revealed a negative or weak negative association. For instance, Močnik and Širec (2015) and Banchuenvijit and Pariyanont (2012) find a negative relationship with firm size and performance.

*H6: There is a significant relationship between firm size and firm financial performance.*

## **Tangibility and Firm Performance**

Tangibility is considered a significant element of a company's performance. It represented by the number of assets or collaterals that used for obtaining the amount of loan. Literature suggests a positive effect of tangibility and firm performance. For instance, MacKie-Mason (1990) argued that high tangible assets bring the debt choice more efficiently for the company. A study by Akintoye (2008) also concludes that firms with high tangible assets can acquire smaller costs of financial distress as compared to those firms which having less

tangible assets. Finally, Kothari, Laguerre, and Leone (2002) concluded that when R&D expense increases, the future earning of the company will increase and expected a positive relationship with tangibility and firm performance.

*H7: There is a significant relationship between tangibility and firm financial performance.*

## Data and Methodology

The main purpose of this study is to examine the role of ownership concentration and dividend policy on firms' financial performance. So, the data has been retrieved from the annual reports of the chemical sector firms for the time period of 2012 to 2017. In KSE, there are 42 firms listed in the chemical sector, but this study has adopted 26 firms due to the inconvenience and lack of available data.

## Variables

Following are the dependent, independent, and control variables used by this study:

*Table 1: Descriptions of Variables*

Variables	Label	Description
Return on assets	ROA	Earnings after tax divided by the number of total assets
Ownership Concentration	OWNR	Percentage of equity holds by the top 5 substantial shareholders.
Dividend Policy	DP	Dividend paid divided by net income.
Leverage	LEV	Total debt divided by total assets of the firms
Liquidity	LIQ	Current liabilities divided by total liabilities of the business
Board size	BSZ	log of the number of board of directors
Firm size	FSZ	Natural logarithm of total assets of the business
Tangibility	TAN	Fixed assets divided by total assets.

### Dependent Variable

In this research, firm performance is used as a dependent variable and measured by return on assets (ROA) (Briones & Chang, 2017). ROA is calculated as EBIT/ total assets (Murtaza & Azam, 2019; Riaz, 2015); which shows that how much a firm earned by the investment of the assets and how the managers use the investor's fund (Vătavu, 2015) or in other words it generates the idea about how effectively management make decisions to generate significant earnings (Nawaz & Haniffa, 2017).

### Independent Variable

The current study analyzed ownership concentration (OWNR), and dividend policy is the independent variable. OWR is calculated as a percentage of equity retained by the top 5 substantial shareholders of the firm (Murtaza & Azam, 2019; Paramanantham, Ting, & Kweh, 2018; Xinyuan, Nan, & Yufei, 2017). While dividend policy (DP) is calculated as cash dividend divided by net income (Maladjian & Khoury, 2014).

### Control Variable

The following control variables are used in the current study. Liquidity (LIQ) is calculated by current liabilities/ total liabilities (Ahmed Sheikh & Wang, 2011; Goh, Tai, Rasli, Tan, & Zakuan, 2018). Tangibility (TAN) is examined through the number of fixed assets divided by the total assets of the business (Goh et al., 2018; Sheikh & Qureshi, 2017). Board size (BSZ), as measured by taking the log of a total number of board directors (Abor, 2007; Kajananthan, 2012; Khawaja, Bhatti, Ashraf, & Henry, 2018; Murtaza & Azam, 2019). Whereas leverage (LEV) is calculated as total debt over total assets (Ilmas, Tahir, & Asrar-ul-Haq, 2018), and firm size (FSZ) is examined by taking the natural logarithm of total assets of the firm (Abdullah, 2005; Murtaza & Azam, 2019).

## Model Specification

Following the model, specification is used to measure the role of ownership concentration and dividend policy on firm performance.

$$ROA_{it} = \beta_0 + \beta_1 OWNR_{it} + \beta_2 DP_{it} + \beta_3 BSZ_{it} + \beta_4 FSZ_{it} + \beta_5 LEV_{it} + \beta_6 LIQ_{it} + \beta_7 TAN_{it} + \epsilon_{it}$$

Where,

ROA = Return on Asset

OWNR = Ownership Concentration

DP = Dividend Policy

BSZ = Board Size

FSZ = Firm Size

LEV = Financial Leverage

LIQ = Liquidity

TAN = Tangibility

i = firms

t = time

$\beta_0$  = constant term

$\epsilon$  = error term

## Results and Discussion

### Summary of Statistics

Table 1: Descriptive Statistics

Variable	Obs	Mean	Std. Dev	Min	Max
ROA	156	0.088	0.233	-2.295	0.465
OWNR	156	0.625	0.238	0.119	0.908
DP	156	0.233	0.698	-1.852	1.817
BSZ	156	2.085	0.233	1.386	2.565
FSZ	156	14.382	2.02	7.979	18.818
LEV	156	1.777	15.885	0.119	19.866
LIQ	156	2.026	4.486	0.007	45.31
TAN	156	0.535	0.233	0.018	1

The total number of observations is 156 in this research. The mean value of ROA is 0.08, with a minimum value of -2,295 and a maximum of 0.465. The average value of ownership is 62% having a minimum value of 0.119 and a maximum value of 0.908. DP shows the mean value of 23% having min and max of -1.852 and 1.817, respectively. The average value of BSZ is 2.08, FSZ is 14.38, LEV is 1.77, LIQ is 2.12, and TAN with 0.535.

### Correlation

The correlation table explains the association between dependent and independent variables. Table 2 findings illustrate the association between the dependent and explanatory variables of the current study. All variables showed a positive relationship with firm performance except LEV and TAN that stated a negative relationship with firm performance. According to Gujarati (2009), a high correlation of independence will create a multicollinearity issue. Further, the multicollinearity is also measured by the variance inflation factor (VIF).

Table 4 explains the result of VIF, and all values are less than 10, which depicts no multicollinearity issue in this study (Wooldridge, 2015).

Table 2: Pairwise Correlations

Variables	ROA	OWNR	DP	BSZ	FSZ	LEV	LIQ	TAN
ROA	1.000							
OWNR	0.023	1.000						
DP	0.290	-0.072	1.000					
BSZ	0.231	-0.288	0.170	1.000				
FSZ	0.283	-0.092	0.076	0.275	1.000			
LEV	-0.832	0.086	-0.148	-0.050	-0.201	1.000		
LIQ	0.194	0.160	0.043	-0.051	0.019	-0.023	1.000	
TAN	-0.371	-0.157	-0.318	-0.019	0.283	0.169	-0.308	1.000

Table 3: Multicollinearity

Details of Variables	VIF	1/VIF
TAN	1.52	0.656319
FSZ	1.33	0.750078
BSZ	1.22	0.820692
DP	1.19	0.842522
OWNR	1.16	0.86311
LIQ	1.15	0.869189
LEV	1.13	0.885262
Mean VIF	1.24	

## Panel Regression Analysis

Before estimating the regression analysis, we have tested some basic assumptions such as heteroskedasticity, serial correlation, VIF, and Hausman test, to reduce the spurious results from the data.

Table 4: Breusch-Pagan test for heteroskedasticity

<b>chi2(1)</b>	<b>=</b>	<b>1.16</b>
<b>Prob &gt; chi2</b>	<b>=</b>	<b>0.2820</b>

The current study has used Wooldridge test to measure the autocorrelation problem in data. In this regard, the p-value is 0.2241 which is greater than 5%. It means that there is no serial correlation issue.

Table 5: Wooldridge test for autocorrelation

<b>F( 1, 25)</b>	<b>=</b>	<b>1.554</b>
<b>Prob &gt; F</b>	<b>=</b>	<b>0.2241</b>

Hausman test technique decides the use of random-effects or the fixed effects of regression (Griffiths, Hill, & Lim, 2008). This specific model is used to measure which model is to be fit among the fixed-effect method and the random effect method. The null hypothesis states the random effect estimation is better to use. So, the results of the Hausman test suggests the random effect model will be used.

Table 6: Hausman Test Technique

Research model	Prob>chi2	Test result
ROA	0.4262	Random effect method

The findings of the random effect “GLS model” are explained in the table: 8. Regression results reveal that OWN is a significant positive linkage with ROA at 1%. An increase in ownership concentration brings higher firm performance (Perrini, Rossi, & Rovetta, 2008; D. A. Singh & Gaur, 2009; Thomsen & Pedersen, 2000). Some findings revealed that ownership concentration has a negatively relationship with firm performance (Bektaş & Kaymak, 2009; Khanchel El Mehdi, 2007; Vepauskaitė & Adams, 2013). While some researches described no association between OWN and firm performance (Sacristán-Navarro, Gómez-Ansón, & Cabeza-García, 2011; Tuschke & Gerard Sanders, 2003). DP also significant positive effect to ROA at 5%. This results is similar to some previous studies (Farrukh et al., 2017; Tahir, Sohail, Qayyam, & Mumtaz, 2016) that explained that firms might decrease agency costs by paying the dividend. This supports the dividend relevance theory (Gordon, 1963; Walter, 1963). BSZ is significant positively influenced by the firm performance at 1% (Dalton, Daily, Johnson, & Ellstrand, 1999; Lipton & Lorsch, 1992; S. Singh, Tabassum, Darwish, & Batsakis, 2018). Because the larger shareholders build many opportunities for firms as well as they also reduce the conflicts among multiple groups of interest, these results are against to the studies of (Chiang & Lin, 2007; Nguyen, Locke, & Reddy, 2014). FSZ also has a significant positive impact on firm performance. It means smaller firms can increase market performance, and larger firms enhance accounting performance. In other words, smaller firms resolve their issues quickly, while larger firms face many issues. LIQ is positive associated with ROA. Whereas LEV has a negatively influenced (Campbell & Mínguez-Vera, 2008), and TAN also have a negative impact on ROA at the level of 1%. The high degree of leverage also increases the risk of bankruptcy. R-square shows the degree of variation in firm performance due to all explanatory variables of study. So, here R-square value is 83%, and the wald chi2 value is 761.01 that shows the significance of the model.

Table 7- Generalized Least Squares Model

ROA	Coef.	Std. Err.	z	P>z
OWN	0.104987	0.034728	3.02	0.003***
DP	0.02485	0.011993	2.07	0.038**
BSZ	0.172085	0.036388	4.73	0.000***
FSZ	0.01681	0.004391	3.83	0.000****
LEV	-0.01105	0.000514	-21.5	0.000***
LIQ	0.005005	0.001837	2.73	0.006***
TAN	-0.21039	0.040643	-5.18	0.000***
_CONS	-0.46165	0.090855	-5.08	0.000***
Observations				156
R-squared				0.83
Number of groups				26
Wald chi2(7)				761.01
Prob > chi2				0.000

Standard errors in parentheses

\*\*\* p&lt;0.01, \*\* p&lt;0.05, \* p&lt;0.1

## Conclusion

The main objective of this research is to examine the role of ownership concentration and dividend policy on firm performance. This study used panel data of Chemical firms of Pakistan for the time span of 2012 to 2017. After employing panel data analysis, the findings revealed that OWN has a significant positive relationship with firm performance measured by ROA. It explained that a large number of shareholders have a right to minimize agency costs between managers and shareholders. They can monitor the team very efficiently. Dividend policy also positive associated with firm performance. An increase in dividend improves firm performance. Tangibility and leverage are negative impact with ROA. BSZ also has a significant positive relationship with ROA. This study is useful for both practitioners and academics as well as for regulatory bodies. Moreover, this research has some limitations. First, this study used small data. Second, the sample size is limited to the chemical sector of firms and excluded from the other sectors and financial firms. So, the results are not encountered all the public listed companies in Pakistan. So to overcome the limitations of this study, it is interesting to determine the association between ownership structure, dividend policy on firm performance by using different sectors and or especially in other (developing) countries.

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**Conflicts of Interest:** The authors declare no conflict of interest.

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# Do Bank Size Moderate Relationship between Banks' Portfolio Diversification and Financial Performance of Commercial Banks in Kenya?

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**Purpose-** It is complicated to efficiently manage the bank's portfolio, simultaneously maximize returns and minimize risks while being subject to managerial and regulatory constraints. In the financial industry, the size of a bank is used to assist in capturing economies as well as diseconomies of scale.

**Design/Methodology-** As in cases of most literature from finance, natural logarithms of banks' total assets were made use of to measure commercial banks' size. The 43 commercial banking institutions having an official license from CBK by December 2017 were the target population of this study. The study analyzed Time-Series Cross-Sectional unbalanced secondary panel data obtained from all the 43 commercial banking institutions in Kenya for fifteen years ranging from 2003 to 2017.

**Findings-** Study findings revealed a positive effect of bank size on ROE and ROA that was significant. Correlation analysis revealed a positive association of bank size on the financial performance of banks in Kenya, which was significant. Bank size had a significant moderating effect on the relationship of banks portfolio diversification and financial performance of banks in Kenya.

**Practical Implications-** The findings on bank size insinuated that a higher size of entire asset of banks is most probable to accelerate the bank to diversify into feasible opportunities on investment, traverse more enhanced lines of business, increase capacity in market power and, produce increased value that boosts the firm to profit from economies of scale and wider scope and henceforth superior and increased financial performance.

## Introduction

Institutions of Commercial Banking, similarly to many others for profit-making institutions, are anticipated to generate revenues profitably through efficient, effective portfolio utilization of available capital resources to make certain of progression and delivering on the expectations by the shareholders of maximum returns on their investments. Financial intermediation is the core role of commercial banks to a large extent can be defined as receipt of funds from units with surpluses in the form of varying deposit accounts to extend units experiencing deficit through lending and advances at distinct prices. Banks in their mandate of performing their core functions of intermediation should be aligned to the circle of development economically and socially of a nation. At this era of economic challenges and reforms, banks are facing a critical time of distress. There is a need to put in place strategies to help savage the banking system. It is, therefore, imperative to strengthen the portfolio mix of the banks.

Olarerwaju, Migiro, and Sibanda (2018) concurred with other authors' theoretical prescriptions among them (Kazan & Uludag, 2014; Markowitz, 1952; Meressa, 2017) by stating that all these diversification avenues such as sectoral credit, assets, deposit types, and income streams are avenues in banks to make use of to be able to exploit new viable ventures to add to their intermediation services that are regarded as traditional to accrue market power and as well withstanding stringent growing competition. Empirical literature on size of bank dated back to 1984 where it was stated that sizeable firms are seen to be extra efficient and profitable than in the case of smaller firms as a result of their superiority in terms of efficiency as outlined by the hypothesis of relative efficiency (Clarke, Davies, & Waterson, 1984). Fama and French (2005) apprehended much of the across sections average stocks returns by suggesting from a firm's perspective, that firms with smaller size face a higher cost of capital as opposed to sizeable firms.

The study by Markowitz (1959) discussed how to pursue quantification of risk and also exhibited quantitatively in what way and manner diversification in a portfolio can work to reduce investor's risk exposure. Exposure in a portfolio is quantitatively described as the standard deviation of expected yield from a period to the next, and the portfolio acquisition challenge is minimized to composing an 'efficient' portfolio, whereby it heavily brings down the exposure for a particular level of gain in a period. In the financial industry, the size of a bank is used to assist in capturing economies as well as diseconomies of scale. As in cases of most literature from finance, the natural logarithm of banks' total assets is made use of to measure commercial banks' size. The size was also included in the regression model for purposes of taking in to account for prospective nonlinearities arising from diseconomies of scale as banking firms become bigger.

An important question underlying policy on financial institutions at what point do size optimizes efficiency. Regulators in the financial sector have continued to lay emphasis on the size of the players by prescribing the minimum capital base. It is regarded as likely growing in size, and stability is enhanced. Intuitively, it is expected that a relationship that is positive will arise from the knowledge that bigger commercial banks can build material, human, financial, and technical resources, thus promoting their efficiency level. In a divergent direction, since agency problem, dysfunction as well as coordination, are more inherent in bigger firms, the expectation will be that smaller banks inculcate inefficiency scores that are lower than of bigger firms (Karray & Chichti, 2013).

Kenyan banking system composition sums up to a total of 40 banks from the existing 42 as I&M Holdings has concluded the purchase of Giro Commercial Bank and Diamond Trust Bank, Kenya is currently in the process of Habib Bank Limited Kenya acquisition. Banks that are under receivership include Chase Bank and Imperial Bank. One mortgage finance firm, twelve licensed microfinance banks, eight offices representing foreign banks, eighty-six bureaus of foreign exchange, fourteen providers of services of money remittance, and three credit reference bureaus. In Kenya, Financial inclusion is continuously surging, considering that the population living within 3 kilometers of an access point of financial services rose to an average of 77.0% in 2016 from 59% year

average in 2013. This has been accelerated by digital banking, Mobile Financial Services (MFS) emerging as the method preferred in accessing financial services in 2016 (CBK, 2016).

Annual financial report by CBK (2016) highlighted that banks in Kenya registered growth in EPS that was anemic in 2016 FY' at 4.4%, and FY'2015 at 2.8%, compared to 13.9% 5-year average. This poor performance resulted from sector's structural challenges specifically on non-performing loans provisioning, shrinking growth in private sector credit, deposit, and liquidity challenges. It is imperative to scrutinize the input-output mix that comprises the portfolio basket of these banking institutions and the manner they have interlinked amongst them to ascertain the individual aggregated levels of performance. The study has ground to be of significance since it will aid the regulatory agencies and institutions in activities of monitoring of the banks and prerequisite stakeholders in the optimization of management objective that is formal in maximizing returns. Consequently, the study sought to scrutinize whether bank size does moderate the relationship between Bank Portfolio diversification (sectoral credit, income streams, deposits, and investment diversification) and financial performance of commercial banks in Kenya.

## Literature Review

The Market-Power hypothesis explains that the outcome emanating from growth in size on the profitability of an institution seems significant and largely positive (Athanasoglou, Brissimis, & Delis, 2008). Sizeable firms are seen to be extra efficient and profitable than in the case of smaller firms as a result of their superiority in terms of efficiency, as outlined by the hypothesis of relative efficiency (Clarke et al., 1984). Expanding the size of the firm may, in consequence, cause separation of control from ownership if the size reaches a threshold. The association existing between the size of an organization and profitability can turn to retrogressive afar from the threshold size of the firm. Fama and French (2005) apprehended much of the across sections average stocks returns by suggesting from a firm's perspective, that firms smaller face higher cost of capital as opposed to sizeable firms.

This paper was grounded on Modern Portfolio Theory (MPT) that was originated from work done by (Markowitz, 1952, 1959). The financial sector has practically applied MPT to a greater extent. MPT mathematically is a construct of diversification idea in investing, whereby the main purpose is to ensure that investors can succeed in negating investment assets that have jointly lowest risks than a sole asset. Given that this is achievable, it can be perceived intuitively since assets that are not similar and often exhibit value change in the opposite manner. An investor needs to make an approximation of anticipated returns and variance or risk that may be attributable to every portfolio of assets and then choose the one which has is more viable based on the parameters (Athanasoglou et al., 2008).

MPT was used to anchor this study because of its applicability to scrutinizing diversification and financial performance. MPT theory acknowledges diversification as very important for risk mitigation and increasing returns that are expected. The theory advocates for mathematically evaluating portfolio diversification to maximize returns. According to MPT theory, spreading investments throughout stocks that are not in a way related can lead to maximization of the firm's potential revenues irrespective of whether there is economic growth or not. Scholars have put across that the asset class allocation across various markets with the independence of liquidity minimize the effect of risk that is diversifiable as a result of contingencies from exterior factors one and all of the different markets (Lewellen & Lewellen, 2010). Diversification, therefore, assists in the reduction of firms' vulnerability to exposures. Pils (2009) suggested that more diversified firms reap higher gearing and debt volume hence improve their financial performance.

In comparison with other Economies in East Africa, the banking sector in Kenya has been applauded for its diversification as well as its size. Portfolio allocation is seen to be drifting to favoring assets that are less risky such as government securities and liquid cash. By September 2016, it was recorded that government securities

contribution was at 24% of the sector balance sheet in comparison to about 18% year average from 2011 to 2015. Private credit to GDP, which is the accepted financial development index was estimated at 34.9% in 2015, in comparison to 45% average for countries in Africa Sub-Sahara (CBK, 2016).

Banks' portfolio of deposits types and sectoral credit, if not carefully managed, will make it challenging in the realization of expected performance. Portfolio, in this regard, attributes to mix of deposits in the form of term structure and associated costs while portfolio mix of sectoral credits allocated is by term structure and rates applied to lend. The composition of these portfolios may translate into risks to banks, and these risks consequently affect performance. The portfolio is normally synonymous with diversification since it explains ways applied in the management of factors of unsystematic risk that are inherent in the type of operations undertaken by banks (Ndungu & Muturi, 2019; Raphael, 2013).

The stochastic frontier approach was utilized in an analysis that compared efficiency about profit and inefficiencies in the cost of banking firms that was in operation in 29 countries in Africa sub-Sahara for the period 2000-07. Tobit regression was used to quantify the influence of environmental variables on the efficiency of commercial banking firms. The outcome indicated that banks that are foreign-owned were more efficient in terms of profit compared to domestic banks. It was established banks smaller in size are more efficient in their profit-making. Medium or relatively larger banking firms tend to be more efficient in cost (Kiyota, 2011).

Nodeh, Anuar, Ramakrishnan, and Raftnia (2015) did a study that the main objective was to empirically investigate the relationship of determinants of the structure of boards of management and performance of banks. The author went further to scrutinize the importance of the role played by bank size as the moderator variable on the link between independence and size of the board with the performance of the institutions. The population of thirty-seven commercial banks in Malaysia that included twenty-one conventional and sixteen Islamic banks from 2005 to 2014 were covered. Panel data analysis was used, and models of OLS and fixed effect showed that independence, as well as the size of board, depicted an impact that was positive on firms' performance. The size of banks had a moderating impact that was positive on the relationship subsisting between the determinants of structures of board and firms' financial performance.

Hanafi Tumin and Mohd Said (2010) research study was an investigation on the performance and financial ratios of banking institutions that are commercial in countries, namely China and Malaysia. Specific objectives investigated the impact of factors that were specific to a bank, among them credit, liquidity, operational expenses, capital, and the size of banking firms on how they perform in terms of profitability. The standard performance measure used as the indicator included return on average equity and return on the average asset. Secondary data was extracted from the financial statement of banking firms that were commercial in Malaysia and China. The financial statement reports were drawn out from the database called BankScope for the duration between 2001 and 2007. The investigation was founded on data that was panel and model of a fixed effect that incorporated a balanced series of yearly data. The size of banks was estimated using real assets and squared real assets in logarithmic form. Deductions from the study indicated that the size and level of liquidity in banks don't bear any influence that is significant on how banks perform in the two countries.

Al Karim and Alam (2013) sought to assess whether the size of a bank, asset management, risk of giving credit, and efficiency of operations do have an impact that is significant on performance measures that are internally based, such as return on asset of commercial banks in Bangladeshi. A performance measure used was based on the market as indicated by the Q model by Tobin that is Price to Book ratio, performance indicators that were indicated by internal based measures such as Return on Assets, and performance measures that were based on economy measured using an index of Economic Value. Yearly time series data between the years 2008 and 2012 of banks selected extracted from audited financial reports on an annual basis were adopted and multiple regression analysis used to assess the impact of independent variables and to come up with a good-fit model

that will assist predict the subsequent commercial banks' financial performance. It was found that the size of the bank, risks from the credit, and efficiency in operations and how assets are managed do significantly and positively affect how banking firms in Bangladeshi perform.

The impact of diversification of investment on commercial banks' financial performance in the context of Kenya was studied by (Kipletting, 2016). The design employed in this research was exploratory. The entire population of this study was derived from the commercial banks that were operation in Kenya and were in total forty. The researcher made use of data collection sheets to collect data that was secondary and was the main tool for data collection and also employed schedules for an interview for collecting data that was primary. The tools were guided by the specified intents of the study. After in-depth analysis using explanatory, inferential statistics and multiple regressions, the study made conclusions that a majority of banking institutions, along the years had in tandem adopted insurance investment, government securities, shares from exchanges, as well as bonds to enhance their profitability and subsequently better returns to their shareholders. Olarewaju et al. (2018) did scrutiny on the impact of operational diversification on banking performance using the pooled, FEM, REM, and System GMM for a duration ranging from 2006 to 2015 and were across two hundred and fifty commercial banks from 30 nations in the region of Sub-Saharan Africa. As a result of strength of robustness of SYS-GMM, it was revealed in the outcome of this assessment that using Herfindahl Hirschman index, every component relating to operational diversification that included; deposit, revenue, asset, liability, and deposit inclusive of control variables like bank size, ratios of liquidity, loan-loss ratio, cost-income ratio and the lagged return on average asset were deemed significant at 1% level having only deposit diversification (HHId), which had a negative link with ROAA. This assessment, however, concluded that diversification of activities relating to the operation of banks in the region of SSA has a direct effect as well as significant on financial performances. It was noted that greater attention should be taken in monitoring the diversification strategies, especially on deposits, to guarantee that no aspect of banks' operation is disregarded.

Nisar, Peng, Wang, and Ashraf (2018) paper was done as a precursor to the continuing debate on the gains and shortcomings of diversifying streams of revenue by banks. Scrutinizing a panel set of information comprising 200 commercial banks domiciled at countries in South Asia, it was discovered that generally, diversification of revenue into non-interest stream positively impacts profitability and likewise stability of commercial banks domiciled at countries in South Asia. Further, diverse forms of non-interest stream-generating undertakings possess divergent impacts on bank performance and thereby impacting their stability. It was noted that as fees and commission streams had an impact that was negative on profitability and solidity of commercial banks domiciled at countries in South Asia, other non-interest streams had positive results. The study observed that the size plays a bigger role in solidifying the financial performance of smaller and larger banks.

In general terms, the relationship that exists between bank size of banks that are commercial, and their performance is considered to be positive (Kiyota, 2011; Nodeh et al., 2015). However, several research studies have implicated bank size impact to be non-linear with profitability surging with commercial bank size and shrinking as a result of bureaucratic, among other reasons (Hanafi Tumin & Mohd Said, 2010). Taking into consideration the above studies, Nodeh et al. (2015) findings are different from the suggested findings and conclusions by Al Karim and Alam (2013); hence the researcher is obliged to investigate further the moderation effect of the bank size.

## Research Methodology

The design employed in the research was a correlation, and secondary data was gathered from statements of finance prepared annually by commercial banking institutions in Kenya. Panel data collected was scrutinized using descriptive statistics, regression, and correlation analysis. Study findings were tabulated in the form of tables and figures. The time variable in years is included to control for cycles that occurred in the economy. The dynamic panel, also called lagged regression models, was employed to control for the time lags. Immediate

previous period performance controlled the relationship that subsisted between portfolio diversification and current period performance.

Independent Variables	Moderating Variable	Dependent Variable
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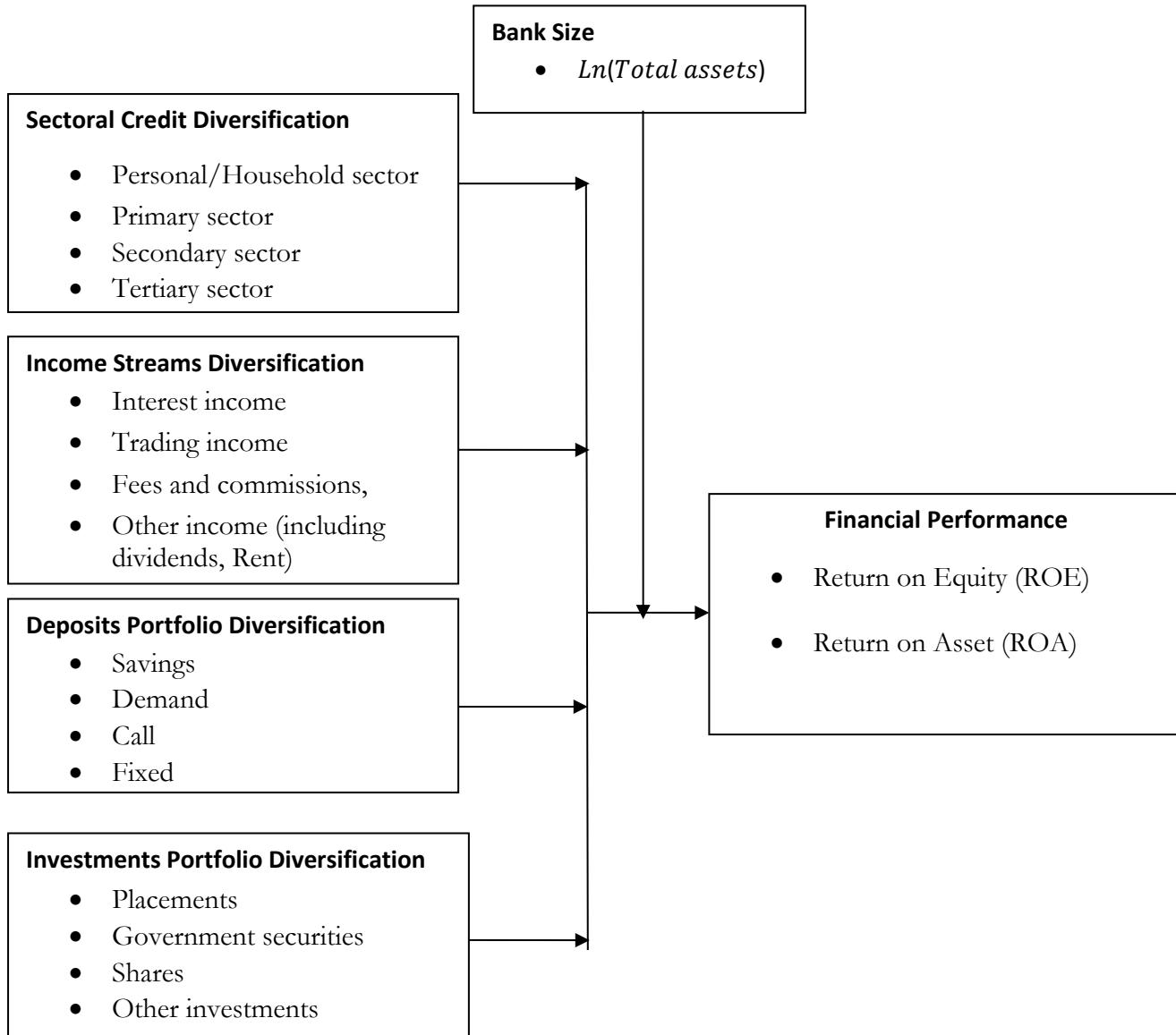


Figure 1 - Conceptual Framework

The study approximated both long run/static and short-run/dynamic panel models as specified in statistical panel models equations above. Specified long-run models were estimated by the aid of the random or fixed-effects models, and the short-run models were estimated by the aid of the system generalized method of moments estimator (Verbeek, 2008).

A general Panel regression model accommodating all the variables that explain Banks' portfolio diversification and the independent variables obtained from that place, the study can, therefore, adopt a model following the work of (Berger, Hasan, Korhonen, & Zhou, 2010). The model is reliant on calculated figures of ROA, ROE, and HHI values of independent variables of each bank for the period 2003-2017.

## Diversification Measure

To measure the scale of diversification, the author used the Herfindahl Index. Acharya, Hasan, & Saunders (2006) defined this indicator as to the summation of squares of individual exposure as a fraction of sum exposures under a set categorization. Herfindahl index will be preconceived as the summation of squares of a portfolio as a percentage of the square of the entire portfolio (Choi, 2001).

## Diversification Scale

The following diversification scale was adopted in this study to judge the values of the Herfindahl Index (HHI), as captured in the below table:

Table 1 - Scale of Diversification

Value of HHI		
<b>From</b>	To	Conclusion
<b>1</b>	0.76	Highly concentrated
<b>0.75</b>	0.51	Lowly diversified
<b>0.5</b>	0.26	Diversified
<b>0.25</b>	0	Highly diversified

(Source: (Acharya, Hasan, & Saunders, 2006))

Awang, (2012) analysis methodology to assess bank size moderation on the relationship between bank portfolio diversification and performance of banks was used. Assuming a multiplicative functional form between explanatory and explained variables by introducing bank size as a moderator;

Linearized and parameterized long-run models (Fixed or Random effect) were as shown in equations 3.10a and 3.10b

$$ROE_{i,t} = \beta_0 + \sum_{j=1}^4 \beta_j X_{i,t} + \beta_q M_{i,t} + \sum_{j=5}^8 \beta_j X_{i,t} M_{i,t} + \alpha_{i,t} + \varepsilon_{i,t} \quad (3.10a)$$

$$ROA_{i,t} = \beta_0 + \sum_{j=1}^4 \beta_j X_{i,t} + \beta_q M_{i,t} + \sum_{j=5}^8 \beta_j X_{i,t} M_{i,t} + \alpha_{i,t} + \varepsilon_{i,t} \quad (3.10b)$$

Linearized and parameterized short-run models (GMM) were as specified in 3.10c and 3.10d

$$ROE_{i,t} = \beta_0 + \lambda ROE_{i,t-1} + \sum_{j=1}^4 \beta_j X_{i,t} + \beta_q M_{i,t} + \sum_{j=5}^8 \beta_j X_{i,t} M_{i,t} + \alpha_{i,t} + \varepsilon_{i,t} \quad (3.10c)$$

$$ROA_{i,t} = \beta_0 + \lambda ROE_{i,t-1} + \sum_{j=1}^4 \beta_j X_{i,t} + \beta_q M_{i,t} + \sum_{j=5}^8 \beta_j X_{i,t} M_{i,t} + \alpha_{i,t} + \varepsilon_{i,t} \quad (3.10d)$$

The test of moderation is operationalized by the product term  $X_{it}M_{it}$  the multiplication between independent variable  $X_{it}$  and moderator variable  $M_{it}$ . For testing moderation in the model, and there was a need to test  $\beta_5 - \beta_8$  which was the coefficient of interaction term  $X_{it}M_{it}$ . If  $\beta_5 - \beta_8$  were significant, the conclusion was that moderator variable bank size moderates relationship subsisting between banks' portfolio diversification,  $X_{it}$ , and financial performance,  $Y_{it}$ . If  $M_{it} = 1$ , bank size is large, otherwise is zero.  $M_{it}$  is bank size measured by the natural logarithm of total assets of a bank at time  $t$ .

## Results

### Descriptive Statistics

None of the bank's portfolio diversification was normally since their respective Jarque-Bera coefficients were less than 0.05. The average bank size was 9.86, with a minimum of 2.23 and a maximum of 14.86. There were lean variations on commercial bank size, as stipulated by a standard deviation of 1.51. Kurtosis was lowest at 2.33 and highest at 13.86. This indicated that every component's kurtosis was not symmetric as that of normal distribution. Moreover, elements of the error term were either more or less peaked than that exhibited by a normal distribution. As depicted in the table, all the variables exhibited kurtosis of leptokurtic nature in nature for a reason being all the indexes of the kurtosis coefficient were all positive.

The values of probability were 0.000 amongst all the components in the series showing model made use of in the study was a good fit, and there was an expectation that every variable measured was anticipated to significantly have an impact on the financial performance of Kenyan banking industry.

Table 2 - Descriptive Statistics

	<b>ROE</b>	<b>ROA</b>	<b>HHI SCD</b>	<b>HHI ISD</b>	<b>HHI DPD</b>	<b>HHI IPD</b>	<b>Bank Size</b>
Mean	16.27	2.00	0.63	0.67	0.65	0.66	9.86
Median	17.19	2.49	0.70	0.69	0.71	0.73	9.66
Maximum	49.40	7.70	0.96	0.93	0.96	0.92	14.86
Minimum	-26.20	-17.00	0.10	0.29	0.26	0.25	2.23
Std. Dev.	14.71	3.52	0.20	0.16	0.16	0.16	1.51
Skewness	-0.56	-2.73	-0.73	-0.52	-0.75	-0.75	-0.30
Kurtosis	3.11	13.86	2.33	2.42	2.50	2.37	5.32
Jarque-Bera	30.80	3531.84	62.48	33.58	59.97	63.81	138.15
Probability	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Sum	9338.83	1150.31	362.93	385.97	374.41	376.40	5661.34
Sum Sq. Dev.	124064.40	7084.77	22.40	14.10	15.32	15.56	1311.88
Observations	574	574	574	574	574	574	574

### Panel Hausman Test for Model with Moderation

As captured in Table 3, the p-value was 0.000, which was less than 0.05. This denoted that there existed sufficient evidence to permit the non-adoption of H0 that we conclude that the most suited model to fit was the FE model. Consequently, the FE regression model was adopted to examine bank size moderation on the subsisting effect of banking portfolio diversification on ROE and ROA of banks in Kenya.

Table 3 - Panel Hausman Test for Model with Moderation

<b>Dependent variable</b>	<b>Test Summary</b>		<b>Chi-Sq. Statistic</b>	<b>Chi-Sq. d.f.</b>	<b>Prob.</b>
ROE			44.876	9	0.000
	<b>Variable</b>	<b>Fixed</b>	<b>Random</b>	<b>Var (Diff.)</b>	<b>Prob.</b>
	HHI SCD	17.114	12.595	19.663	0.308
	HHI ISD	30.470	7.831	24.020	0.000
	HHI DPD	8.799	23.297	-32.485	0.011
	HHI IPD	49.241	52.147	-16.940	0.480
	Bank size	3.720	2.495	-0.241	0.013
	HHI SCD * BS	3.569	3.379	-0.184	0.658
	HHI ISD*BS	2.957	4.578	-0.336	0.005

	HHI DPD*BS	4.083	1.980	0.208	0.000
	HHI IPD*BS	3.583	3.599	-0.176	0.970
<b>ROA</b>	<b>Test Summary</b>		<b>Chi-Sq. Statistic</b>	<b>Chi-Sq. d.f.</b>	<b>Prob.</b>
			19.278	9	0.023
	<b>Variable</b>	<b>Fixed</b>	<b>Random</b>	<b>Var (Diff.)</b>	<b>Prob.</b>
	HHI SCD	9.616	10.560	-0.665	0.247
	HHI ISD	7.642	10.795	-0.880	0.001
	HHI DPD	5.096	6.229	-1.160	0.293
	HHI IPD	8.571	9.680	-0.576	0.144
	Bank size	1.043	1.277	-0.009	0.011
	HHI SCD * BS	0.539	0.623	-0.006	0.286
	HHI ISD*BS	0.842	0.955	-0.012	0.304
	HHI DPD*BS	0.652	0.917	-0.008	0.002
	HHI IPD*BS	0.641	0.723	-0.006	0.291

## Hypothesis Testing

Regression results in Table 4 revealed that 81.58 percent of changes in ROE was accounted for by bank portfolio diversification, bank size, and moderated bank portfolio while the remaining percentage was as a result of other factors excluded in the derived model. R squared was very strong after moderation, which indicated banking size had a moderating effect on the subsisting effect of banks' portfolio diversification on the financial performance of commercial banks in Kenya. Further, bank size had a significant positive effect on banking performance in Kenya ( $\beta = 3.7204$ , p-value  $<0.05$ ).

After bank size moderation on HHI SCD\*BS, it had a positively significant effect on ROE ( $\beta = 3.5691$ , p-value  $<0.05$ ). Secondly, there a positive and non-significant moderated effect of HHI ISD\*BS ( $\beta = 2.9571$ , p-value  $>0.05$ ). Thirdly, there was a positively significant moderated effect of HHI DPD\*BS ( $\beta = 4.0829$ , p-value  $<0.05$ ). Finally, there was a positively significant moderated effect of HHI IPD\*BS ( $\beta = 3.5826$ , p-value  $<0.05$ ).

$$ROE = -11.8427 + 17.1142 * HHI SCD + 30.4703 * HHI ISD + 8.7986 * HHI DPD + 49.2408 * HHI IPD + 3.7204 * Bank size + 3.5691 * HHI SCD*BS + 2.9571 * HHI ISD *BS + 4.0829 * HHI DPD*BS + 3.5826 * HHI IPD*BS \dots \dots \dots \quad (4.1)$$

Bank size moderating effect was confirmed through comparison of moderated and non-moderated coefficients with marginal changes of bank size on association of banking portfolio diversification and financial performance of banks in Kenya. Bank size moderation effect will be present if marginalized coefficients will differ from non-moderated banking portfolio diversification coefficients. The following equations were adopted:

$$\frac{\delta ROE_{i,t}}{\delta HHI SCD_{i,t}} = \beta_1 + \beta_6 BS = 17.1142 + 3.5691 * 9.86 = 52.3055$$

$$\frac{\delta ROE_{i,t}}{\delta HHI ISD_{i,t}} = \beta_2 + \beta_7 BS = 30.4703 + 2.9571 * 9.86 = 59.6273$$

$$\frac{\delta ROE_{i,t}}{\delta HHI DPD_{i,t}} = \beta_3 + \beta_8 BS = 8.7986 + 4.0829 * 9.86 = 49.0560$$

$$\frac{\delta ROE_{i,t}}{\delta HHI IPD_{i,t}} = \beta_4 + \beta_9 BS = 49.2408 + 3.5826 * 9.86 = 84.5652$$

Comparison between marginalized coefficients and those non-moderated in equation 4.1, these coefficients differed. Hence, it was concluded that banking institutions' size moderated significantly, the subsisting effect of banks portfolio diversification on ROE of banks in Kenya.

Table 4 - Bank Size Moderating Effect on Effect of Banks Portfolio Diversification ROE

Variable	Coefficient	Robust Std. Error	t-Statistic	Prob.
C	11.8427	11.3509	1.0433	0.2973
HHI SCD	17.1142	17.3522	0.9863	0.3244
HHI ISD	30.4703	15.3197	1.9890	0.0472
HHI DPD	8.7986	20.3085	0.4332	0.6650
HHI IPD	49.2408	18.8819	2.6078	0.0094
Bank size	3.7204	1.1916	3.1223	0.0019
HHI SCD * BS	3.5691	1.7953	1.9880	0.0473
HHI ISD*BS	2.9571	2.0882	1.4161	0.1573
HHI DPD*BS	4.0829	1.5456	2.6416	0.0085
HHI IPD*BS	3.5826	1.8614	1.9247	0.0548
R-squared	0.8158	Mean dependent var		16.2697
Adjusted R-squared	0.7994	S.D. dependent var		14.7145
S.E. of regression	6.5911	Akaike info criterion		6.6892
Sum squared residuals	22850.5700	Schwarz criterion		7.0532
Log-likelihood	-1871.8080	Hannan-Quinn criterion.		6.8312
F-statistic	49.5713	Durbin-Watson stat		1.4372
Prob(F-statistic)	0.0000			

Regression results in Table 5 revealed that 74.66 percent of changes in ROA was accounted for by bank portfolio diversification, bank size, and moderated bank portfolio while the remaining percentage was as a result of other factors excluded in the derived model. R squared was very strong after moderation, which indicated banking size had a moderating effect on the effect of bank portfolio diversification on ROA of banks in Kenya. Further, bank size had a significant positive effect on banking performance (ROA) in Kenya ( $\beta = 1.0428$ , p-value <0.05).

After bank size moderation on HHI SCD\*BS it had positive and non-significant effect on ROA ( $\beta = 0.5393$ , p-value >0.05). Secondly, there a positive and non-significant moderated effect of HHI ISD\*BS on ROA ( $\beta = 0.8419$ , p-value >0.05). Thirdly, there was the positive and non-significant moderated effect of HHI DPD\*BS on ROA ( $\beta = 0.6518$ , p-value >0.05). Finally, there was a positive and non-significant moderated effect of HHI IPD\*BS ( $\beta = 0.6410$ , p-value >0.05).

$$ROA = -15.3079 + 9.6156 * HHI SCD + 7.6419 * HHI ISD + 5.0961 * HHI DPD + 8.5714 * HHI IPD + 1.0428 * Bank size + 0.5393 * HHI SCD*BS + 0.8419 * HHI ISD *BS + 0.6518 * HHI DPD*BS + 0.6410 * HHI IPD*BS \dots \dots \dots \quad (4.2)$$

Bank size moderating effect was confirmed through comparison of moderated and non-moderated coefficients with marginal changes of bank size on banking portfolio diversification on financial performance (ROA). Bank size moderating effect will be present if marginalized coefficients will differ from non-moderated banking portfolio diversification coefficients. The following equations were adopted:

$$\frac{\delta ROAi,t}{\delta HHISCDi,t} = \beta_1 + \beta_6 BS = 9.6156 + 0.5393 * 9.86 = 14.9331$$

$$\frac{\delta ROAi,t}{\delta HHI ISDi,t} = \beta_2 + \beta_7 BS = 7.6419 + 0.8419 * 9.86 = 15.9430$$

$$\frac{\delta ROAi,t}{\delta HHI DPDi,t} = \beta_3 + \beta_8 BS = 5.0961 + 0.6518 * 9.86 = 11.5229$$

$$\frac{\delta ROAi,t}{\delta HHI IPDi,t} = \beta_4 + \beta_9 BS = 8.5714 + 0.6410 * 9.86 = 14.8917$$

Comparison between marginalized coefficients and those non-moderated in equation 4.2, these coefficients differed. Hence, it was concluded that bank size had significant moderating on the effect of banks portfolio diversification on ROA of commercial banks in Kenya.

Table 5 - Bank Size Moderating Effect on Effect of Banks Portfolio Diversification on ROA

Variable	Coefficient	Robust Std. Error	t-Statistic	Prob.
C	-15.3079	3.1818	-4.8110	0.0000
HHI SCD	9.6156	4.8641	1.9768	0.0486
HHI ISD	7.6419	4.2944	1.7795	0.0757
HHI DPD	5.0961	5.6928	0.8952	0.3711
HHI IPD	8.5714	5.2929	1.6194	0.1060
Bank size	1.0428	0.3340	3.1221	0.0019
HHI SCD * BS	0.5393	0.5033	1.0717	0.2844
HHI ISD*BS	0.8419	0.5853	1.4383	0.1509
HHI DPD*BS	0.6518	0.4333	1.5044	0.1331
HHI IPD*BS	0.6410	0.5218	1.2285	0.2198
R-squared	0.7466	Mean dependent var		2.0040
Adjusted R-squared	0.7239	S.D. dependent var		3.5163
S.E. of regression	1.8476	Akaike info criterion		4.1456
Sum squared residuals	1795.5310	Schwarz criterion		4.5095
Log likelihood	-1141.7730	Hannan-Quinn criterion.		4.2875
F-statistic	32.9676	Durbin-Watson stat		1.9469
Prob(F-statistic)	0.0000			

As outlined in Table 6, there was a significant short-run effect of banks' portfolio diversification on ROE of banks in Kenya and bank size moderating effect (Wald Chi-square = 473.84, p-value < 0.05). There was a positively significant effect of lagged return on ROE, sectoral credit diversification, income streams diversification, deposit diversification, investment portfolio diversification, bank size, and its moderating effect.

$$ROE = -9.5389 + 0.2341 * ROE_{t-1} - 10.2806 * HHI SCD - 20.4181 * HHI ISD + 46.5967 * HHI DPD + 22.5665 * HHI IPD - 1.5715 * Bank size + 2.878 * HHI SCD*BS + 3.1173 * HHI ISD *BS - 2.9287 * HHI DPD*BS - 1.1575 * HHI IPD*BS \dots \dots \dots 4.3$$

Bank size moderating effect was confirmed through comparison of moderated and non-moderated coefficients with marginal changes of bank size on banking portfolio diversification on financial performance. Bank size moderating effect will be present if marginalized coefficients will differ from non-moderated banking portfolio diversification coefficients. The following equations were adopted:

$$\frac{\delta ROAi,t}{\delta HHI SCDi,t} = \beta_1 + \beta_6 BS = -10.2806 + 2.878 * 9.86 = 18.09648$$

$$\frac{\delta ROAi,t}{\delta HHI ISDi,t} = \beta_2 + \beta_7 BS = -20.4181 + 3.1173 * 9.86 = 10.318478$$

$$\frac{\delta ROAi,t}{\delta HHI DPDi,t} = \beta_3 + \beta_8 BS = 46.5967 - 2.9287 * 9.86 = 17.719718$$

$$\frac{\delta ROAi,t}{\delta HHI IPDi,t} = \beta_4 + \beta_9 BS = 22.5665 - 1.1575 * 9.86 = 11.15355$$

Comparison between marginalized coefficients and those non-moderated in equation 4.3 these coefficients differed. Hence, it was concluded that bank size had significant moderating on the effect of banks portfolio diversification on ROA of commercial banks in Kenya.

*Table 6 - Dynamic Panel Model on Bank Size Moderating Effect on the Effect of Banks Portfolio Diversification on ROE*

System dynamic panel-data estimation	Number of obs	=	534		
Group variable: id	Number of groups	=	39		
Time variable: year	Obs per group:	min =	8		
		avg =	13.69231		
		max =	15		
Number of instruments = 128	Wald chi2(10)	=	473.84		
	Prob > chi2	=	0.0000		
One-step results					
roe	Coef.	Std. Err.	z	P> z	[95% Conf. Interval]
roe					
L1.	.2341269	.0384858	6.08	0.000	.1586962 .3095576
hhicredit_diversification	-10.28057	20.34623	-0.51	0.613	-50.15845 29.59731
hhincome_diversification	-20.41811	18.18034	-1.12	0.261	-56.05092 15.2147
hhdeposit_diversification	46.59697	23.43268	1.99	0.047	.6697625 92.52418
hhinvestment_portfolio	22.56647	20.38212	1.11	0.268	-17.38175 62.51469
bank_size	-1.571524	1.600769	-0.98	0.326	-4.708973 1.565926
hhicdbs	2.847803	2.070491	1.38	0.169	-1.210285 6.905891
hhidbs	3.177371	1.800999	1.76	0.078	-.3525218 6.707264
hhiddbs	-2.928655	2.389351	-1.23	0.220	-7.611696 1.754387
hhipbs	-1.157456	1.994384	-0.58	0.562	-5.066377 2.751465
_cons	-9.538933	15.51929	-0.61	0.539	-39.95618 20.87832

Adaption of the Sargan test in the study enabled the determination of the likelihood of the model underestimation. The H0 in the test outlined that the model's underlying conditions were met as opposed to an alternative of their non-satisfaction. The outcome, as highlighted in Table 7, disclosed that the model was rightly identified since its p-value was lower than 0.05, which was the critical value.

*Table 7 - Sargan Test for the Model*

Sargan test of overidentifying restrictions
HO: overidentifying restrictions are valid
chi2(117) = 190.3967
Prob > chi2 = 0.0000

As shown in Table 8, there was a significant short-run effect of banks' portfolio diversification on ROA of banks in Kenya and bank size moderating effect (Wald Chi-square = 463.29, p-value < 0.05). There was a

positive significant effect of lagged return on return on assets, sectoral credit diversification, income streams diversification, deposit diversification, investment portfolio diversification, bank size, and its moderating effect.

ROA = -21.6250 + 0.3653\*ROA<sub>t-1</sub> + 9.5979\*HHI SCD + 7.8951\* HHI ISD + 7.1843 \* HHI DPD + 10.1516\*HHI IPD+ 1.8079\* Bank size - 0.2259\*HHI SCD\*BS - 0.7102 \* HHI ISD \*BS -0.4719\*HHI DPD\*BS -0.7953\*HHI IPD\*BS .....4.4

Bank size moderating effect was confirmed through comparison of moderated and non-moderated coefficients with marginal changes of bank size on banking portfolio diversification on financial performance bottom line being all commercial banks in Kenyan context. Bank size moderating effect will be present if marginalized coefficients will differ from non-moderated banking portfolio diversification coefficients. The following equations were adopted:

$$\frac{\delta R O A_{i,t}}{\delta H I S C D_{i,t}} = \beta_1 + \beta_6 B S = 9.5979 + -0.2259 * 9.86 = 7.370526$$

$$\frac{\delta ROA_{i,t}}{\delta HHI_{i,t} \delta SDI_{i,t}} = \beta_2 + \beta_7 \text{BS} = 7.8951 + -0.7102 * 9.86 = 0.892528$$

$$\frac{\delta ROAi,t}{\delta HHI DPDi,t} = \beta_3 + \beta_8 BS = 7.1843 - 0.4719 * 9.86 = 2.531366$$

$$\frac{\delta ROA_{i,t}}{\delta HHIPDI_{i,t}} = \beta_4 + \beta_9 BS = 10.1516 - 0.7953 * 9.86 = 2.309942$$

Comparison between marginalized coefficients and those non-moderated in equation 4.4, these coefficients differed. Hence, it was concluded that bank size had significant moderating on the effect of banks portfolio diversification on ROA of banking in bottom line of Kenya.

Table 8 - Dynamic Panel Model on Bank Size Moderating Effect on the Effect of Banks Portfolio Diversification on ROA

System dynamic panel-data estimation

Number of obs = 534

Group variable: id

Number of groups = 39

Time variable: year

Obs per group:

min =	8
avg =	13.69231
max =	15

Number of instruments = 128

Wald chi2(10) = 463.29

Prob > chi2 = 0.0000

One-step results

	roa	Coef.	Std. Err.	z	P> z	[95% Conf. Interval]
roa						
L1.	.365283	.0366145	9.98	0.000	.2935198	.4370462
hhicredit_diversification	9.597784	4.866497	1.97	0.049	.0596244	19.13594
hhincome_diversification	7.895052	4.213837	1.87	0.061	-.3639163	16.15402
hhdeposit_diversification	7.184342	5.882099	1.22	0.222	-.434436	18.71304
hhinvestment_portfolio	10.15158	4.990643	2.03	0.042	.3700984	19.93306
bank_size	1.807883	.3675971	4.92	0.000	1.087406	2.52836
hhicdbs	-.7258548	.49624	-1.46	0.144	-.1698467	.2467578
hhidbds	-.7102491	.4200425	-1.69	0.091	-.1533517	.1130191
hhidbds	-.4719717	.6005189	-0.79	0.432	-.1.648967	.7050237
hhippbs	-.7952752	.487933	-1.63	0.103	-.1.751606	.161056
_cons	-21.62498	3.547686	-6.10	0.000	-28.57831	-14.67164

The adoption of the Sargan test was solely for the examination of the likelihood of model under-estimation. The  $H_0$  in the test outlined that the model's underlying conditions were met as opposed to an alternative of their non-satisfaction. The outcome, as highlighted in Table 9, disclosed that the model was rightly identified since its p-value was lower than 0.05, which was the critical value.

*Table 9 - Sargan Test for the Model*

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Sargan test of overidentifying restrictions
H0: overidentifying restrictions are valid

chi2(117)      =  294.0328
Prob > chi2    =  0.0000
  
```

Bank size was seen to have a positive association with banking performance, which was significant (p value<0.05), and this confirmed the deductions made by Stiroh (2004); Afzal and Mirza (2012); DeYoung and Rice (2004). In the two dynamic panel models with ROE and ROA representing the performance of banks, the number of instruments (128) is fairly low when it was compared to the number of observations (534), confirming that there is no problem emanating from instrument proliferation. The Sargan test that was significant (p value=0.00; <0.05) shown that the instrument set was valid and more so exogenous. These results of the diagnostic tests of system GMM in the models thus validated the models and as well-validated conclusions and observations made based on system GMM estimations. The time variable in years is included to control for cycles that occurred in the economy. The number of groups of 39 represented the number of banks that were analyzed in this study. The minimum was (8) and maximum was (15) with an average of (13.69) observed groups.

The positive direction of influence in both models that is static and dynamic panel of sectoral credit, income streams, deposits types, and investment avenues diversification as well as their significance resonates to results insinuated by the study of Turkmen and Yigit (2012); Ebrahim and Hasan (2008); Mulwa, Tarus, and Kosgei (2015) where they indicated that diversification lowers systematic risk, reduces volatility in earnings and henceforth lowers agency. The findings were also in agreement with Landi and Venturelli (2001), who underlined that diversification significantly affected efficiency in terms of profits, prices, and revenue growth.

The size of the banks, in many instances, is made use of in the banking system to control for risk and cost difference. The results displayed in this study insinuates that the larger or bigger the entire assets of banks, the wider the scale of diversity into viable areas of investment, the more banks explore diverse lines of business, strengthen market power and in tandem, add value for boosting benefits derived from economies of scale and scope thereby appealing and improved performance. Diversifying portfolios by banking institutions decide degrees of risk banks are inclined to incur. Losses emanating from one portfolio can be paid back by the earnings derived from other portfolio combinations. It is henceforth of prime importance for banking institutions to mold their strategic resolutions while giving more attention to risk-return preferences controlled by bank size.

Nodeh et al. (2015) found that the size of banks had a moderating impact that was positive on the relationship between the determinants of structures of board and firms' financial performance depicting a consistent finding with the current study. Hanafi Tumin and Mohd Said (2010) deductions from the study indicated that size and level of liquidity in banks don't bear any influence that is significant on how banks perform in the two countries, which was contradictory with the findings depicted in the current study. Al Karim and Alam (2013) found out that the size of the bank, risks from the credit, and efficiency in operations and how assets are managed do

have a significant and positive effect on how banking firms in Bangladeshi perform which was consistent with the findings depicted in the current study.

In general terms, the relationship that exists between bank size of commercial banks and their performance is considered to be positive (Kiyota, 2011; Nodeh et al., 2015). However, several research studies have implicated bank size impact to be non-linear, with profitability increasing with commercial bank size and shrinking as a result of bureaucratic factors, among other reasons (Hanafi Tumin & Mohd Said, 2010). Taking into consideration the above studies, Hanafi Tumin and Mohd Said (2010) findings are different from the suggested findings and conclusions by Al Karim and Alam (2013) and Nodeh et al. (2015).

## Discussion

The main objective of the study evaluated the moderating effect of bank size on the effect of bank portfolio diversification on financial performance in Kenya. Study findings revealed a positive and significant effect of bank size on ROE and ROA. Correlation analysis revealed a positive and significant effect of bank size on the financial performance of banks in Kenya. Bank size had a significant moderating effect on the effect of banks' portfolio diversification on the financial performance of banks in Kenya. This was documented with an R squared change of 1.22 percent and 1.3 percent for ROE and ROA, respectively. Bank size moderating effect was to be present if marginalized coefficients were to differ from non-moderated banking portfolio diversification coefficients. A comparison between marginalized coefficients and those non-moderated coefficients differed. Hence, it was concluded that bank size had significant moderating on the effect of bank portfolio diversification on ROA of commercial banks in Kenya. In conclusion, bank size affected moderated sectoral credit diversification, income streams diversification, deposits portfolio diversification, and investment portfolio diversification effect on banks' performance in Kenya. Although bank size had a positive moderating effect on the effect of banks' portfolio diversification on the financial performance of banks, it was not significant.

## Practical Implications

The finding on bank size in this study insinuated that a higher size of entire asset of banks is most probable to accelerate the bank to diversify into feasible opportunities pertaining investment, traverse more enhanced lines of business, increase capacity in market power and for this reason, produce increased value that boosts the firm to profit from economies of scale and wider scope and henceforth superior and increased financial performance. Following Modern portfolio theory, credit, revenue streams, assets, and deposit are instruments in banking system to make use whereby they can traverse wider, newer and feasible investment scenarios in addition to the role of intermediation that is traditional to the level of having grounded market power that can hold out against competitiveness as the industry in the region is explosively competitive, but should engage training of human aspect of capital, growth, and redeployment to adequately enhance attainment in totality of the goal of diversification.

Commercial banks should develop strategies to increase their asset base. Alternative valuation approaches should be developed to ensure that depleting assets are continuously excluded from the future evaluation of commercial banks' assets. Furthermore, commercial banks should intensify the acquisition of tangible and intangible assets. Intangible assets may be acquired through the development of products for propelling competitive advantages.

The study finally recommends that banking institutions should refocus its activities to further the confidence in portfolio diversification, come up with marketing blueprints that encourage its use, and establish the best combination of assets that can yield an efficient portfolio. This insinuates that spreading of investments across divergent and unrelated pools minimizes exposures to the sudden, unforeseen outcome and in a diversified portfolio; gains from another investment subsequently offset a loss/risk in one investment. Thus, premising

deductions on the outcome and study conclusions, the researcher recommends that the regulator also known as the apex bank (Central Bank of Kenya) should render close and regular supervision and keep track of deposit money banks' solidity and levels of liquidity in an endeavor to bring stability and financial health the banking industry of the economy and as well set a benchmark for their allocation of credit portfolio. Banks advances and loans should be intelligently collected and provision of defaults be ensured because it can never be avoided. Banks are obligated to have proper measures to lower risk through the process of portfolio management.

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# Audit Committee Effectiveness and Earnings Management Among Publicly Listed Firms in Kenya

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## Abstract

**Objective:** The paper sought to investigate the role of an effective audit committee in controlling earnings management practices.

**Design / Methodology:** A panel data sourced from the audited financial reports of firms listed at the Kenyan Nairobi Securities Exchange for the periods between 2004 and 2017 were analyzed using a panel regression model.

**Findings:** Audit committee effectiveness proved an important monitoring mechanism for earnings management. The independence, Meeting frequency, and financial expertise of the audit committee evidenced a negative and significant effect on earnings management.

**Practical Implications:** Firms need to ensure that their audit committees operate effectively. This is achieved through enhancing their independence, ensuring optimal meeting frequency, and a higher number of members with financial expertise for fewer earnings management.

**Originality:** The paper suggests the ways through which audit committee effectiveness can be enhanced to reduce earnings management amid rampant global financial scandals.

## Introduction

Earnings are the most important accounting items in generating and interpreting financial reports. They are key components in determining decisions on dividends and investment; measures of firm performance provides a criterion for valuing stocks and are the basis for financial forecasting (Mohammady, 2010). Its significance justifies the recent global scholarly attention towards earnings and earnings management, especially owing to its implication on a myriad of stakeholders. Earnings management in the modern business environment has been of great concern due to its explanatory power towards the evident global financial frauds.

At the end of every financial period, reporting on earnings is expected of every listed firm, whereby it is made based on the prescribed practices and procedures set by the accounting standards-setting bodies. However, these standards provide an opportunity for managers to exercise their discretion in financial reporting, such as the choice of assets impairment methods, depreciation approach, revenue recognition methods, and recording of receivables. Given the discretion to make accounting choices, opportunistic managers get involved in discretionary earnings management when preparing and presenting financial statements to achieve their purposes (Z. Lin, Liu, & Noronha, 2016). According to (Healy & Wahlen, 1999), earnings management is the use of judgment in financial reporting and in structuring transactions to alter financial reports to either mislead some stakeholders about the underlying economic performance of the company or to influence contractual outcomes that depend on reported accounting numbers.

Financial analysts, regulators, and accounting experts have been increasingly concerned about the probity of financial statements, mainly after a sequence of high-profile accounting scandals and inconspicuous fraud companies (Singh, Aggarwal, & Anand, 2016). Management engages in opportunistic accruals management to achieve their benefits such as pay-for-performance incentives for retention purposes and to portray a good image shortly before retirement. Cornett, McNutt, and Tehranian (2009) added that earnings management is conducted through window dressing up of financial statements shortly before the offering of public securities to enhance the top management's financial benefits and job security, to evade infringement of lending agreements and to cut the cost of regulation or to increase its benefits.

Managers are more likely to make decisions that diverge from the shareholders' interests in a business environment where there is a lack of effective control procedures and thus, resulting in managers abusing their discretion over earnings, by engaging in earnings management. This generates the necessity to incur monitoring costs borne by the shareholders. Due to the conflict of interest between the management and the shareholders, the incentive for misrepresentation of company results emanates (Albu & Girbina, 2015), therefore resulting in agency conflicts. This act of discretionary earnings manipulation results into agency conflicts between the company shareholders and the top management who are the agents, since the owners are misled on the true value of their investments. Earnings management is more likely to be detrimental to the firm as it minimizes the credibility of disclosed earnings and its utility in investment decisions. This hurts reducing investor confidence in the financial reports.

There exists an agency relationship between the shareholders and the management, and an agency conflict arises almost inevitably caused by the division of ownership and control, especially in the current business environment where the two roles are distinct. Due to these separations of roles, the executives are placed in an advantaged position that allows them all the freedom to make decisions that could either align with or entrench the company's goal of maximizing the shareholder value (Hassan & Ahmed, 2012). Supreme control and management of the company's resources by the managers also give them an upper hand, which may result in enabling them to make decisions that resonate with their individual goals, contrary to those of their employers who are the shareholders (NAZIR & AFZA, 2018).

To work on the agency conflicts amongst the management and the shareholders, agency theory suggests a monitoring mechanism to be put in place like a control mechanism towards constraining this opportunistic behavior of the management. To curb any deviation of collective interest and to ensure adequate accountability of resources, a firm needs a robust monitoring structure which promotes efficient output and ethical behavior, since ensuring minimal misstatements on the reported financial accounts goes a long way in reducing the divergence of interests. Sound financial reporting eliminates the agency issues by filling in the information asymmetry gap that is evident between the management and the owners (Karamanou & Vafeas, 2005).

Governance practices restrict the managers' capacity to manipulate earnings (K. Y. Chen, Elder, & Hsieh, 2007; Huang, Mishra, & Raghunandan, 2007; Jaggi, Leung, & Gul, 2009; Jaggi & Tsui, 2007; Kim & Yi, 2006; Peasnell, Pope, & Young, 2005). Singh et al. (2016) Quantified corporate governance by its various attributes, such as the size of the board, the board meetings frequency, the independence of the board, the duality of positions (CEO / chair), the rate of audit committee meetings and the independence of the audit committee. Earnings management has been documented differently by extant literary works, particularly on the role of the audit committees' effectiveness in constraining such opportunistic behavior of the management. An audit committee is assigned with the responsibility of ensuring quality financial reporting in the firm, prompting an investigation into its role in curbing earnings management in the firms. The next section of the article is on the review of literature and hypothesis development, and the subsequent sections are organized into research methods, results and discussion, and finally, the conclusion.

## Literature Review

### Agency Theory

Agency theory argues that an agency relationship is said to exist when one party to the agency relationship (principal) gives another party (agent) a delegation to execute a job or service and assigns the authority to decide on his behalf (Jao & Pagalung, 2011; Jensen & Meckling, 1976). In an organizational setup, therefore, an agency relationship exists where the shareholders delegate the role of managing the firm to the agents who are the firms' management. The problem with this principle arises from the separation of owners and management rights. Agency conflicts arise if agents do not perform as required by the owners, who are the firms' shareholders. The disagreement can lead to information asymmetry, since management may not conceal information to investors in an openly and transparently. The conception of audit committees derives its motivation from the concept of agency theory, which suggests a monitoring mechanism to be put in place. Jensen and Meckling (1976), though, argue that the delegation of authority to control the firm by the Principal, as well as the resulting division of duties, is helpful in the creation of a productive and rewarding organization.

The conflict of interests according to agency theory that arise between the parties to the agency contract can be avoided or minimized by the enactment of a good corporate governance mechanism (Nasution & Setiawan, 2007), such as the audit committee, ownership structures, the board of directors and other internal controls that would act as a monitoring mechanism. The Agency model recommends that, due to the self-interests on the side of the agents, the principals will not take the agents as their fiduciaries, but instead they will seek to resolve their problem by implementing mechanisms that work towards converging the interests of agents with theirs and towards constraining the extent of information asymmetries and opportunistic behavior (Eisenhardt, 1989; Fama & Jensen, 1983).

### Audit Committee Independence and Earnings Management

Audit Committee Independence refers to the presence of independent directors in the audit committee (Singh et al., 2016). An audit committee should work free of any internal or external influence since the oversight organ within the firm. The Sarbanes-Oxley Law and Act (2002) stresses the need for autonomy on the audit committee for a prudent oversight of financial reporting, calling on the presence of an entire Audit Committee,

which is independent. Klein (2002) asserts the independence of the audit committee enhances committees' effectiveness in controlling and ensuring that desirable financial reporting standards are met. Extant studies also associate fewer financial misstatements with higher independence in the audit committees, (e.g. Abbott, Parker, & Peters, 2004) which suggests that an entirely independent audit committee is preferable and is capable of protecting the interests of the owners as well efficient in performing its oversight function, especially due to its ability to assess issues critically (e.g. Abbott et al., 2004; Bédard, Chtourou, & Courteau, 2004; Yang & Krishnan, 2005).

As supported by Vafeas (2005) and Yang and Krishnan (2005), Non-executive individuals from the audit committee have an enthusiasm for keeping up and improving their reputation and are accordingly keen on achieving a significant level of financial reporting quality, which lessens managerial earnings manipulation. While others found a positive relationship (e.g. Beasley, Carcello, Hermanson, & Neal, 2009; Bryan, Liu, Tiras, & Zhuang, 2013). An impartial audit committee is widely considered to service the shareholders with an efficient oversight of both the financial reporting decisions pursued by the executives and ensure the integrity of the financial statements. Deli and Gillan (2000) argued that the AC acts as a pillaring agent that fosters the autonomy of both the internal and external auditors. Consequently, the audit committees are deemed to be much more efficient in supervising financial reporting processes, provided they are independent enough to shield them from external influence. Xie, Davidson III, and DaDalt (2003) argued that an independent audit committee would give superior governance, particularly in comparison with a less independent committee. Such assertions, recommendations, and aspirations are backed by the requirements in the Sarbanes-Oxley Act mandating publicly trading firms to have fully independent audit committees.

In contrast, some past researchers evidenced no proof of a correlation between the quantity of independent members from the audit committee and earnings management (e.g. Davidson, Goodwin-Stewart, & Kent, 2005; He, Wright, Evans, & Crowe, 2007; J. W. Lin, Li, & Yang, 2006; Xie et al., 2003; Yang & Krishnan, 2005). They propose that the time available to the external members isn't adequate to enable them to track managerial exercises associated with financial reporting.

*Ho: Audit committee independence has no significant effect on earnings management*

## Audit Committee Meeting Frequency and Earnings Management

Most of the meetings held by the audit committees are conducted to enhance the efficiency of the management and not to exploit their own goals. Agency theory contends that audit committees give a viable oversight of the companies' board of directors with a possibility that when the AC has a higher number of meetings held annually and is more independent, then managers' tendency to manage earnings reduces. Xie et al. (2003) found out that ACs who meets more often are great administrators in directing the financial reporting processes. The number of meetings held by the audit committee is an indicator of the degree to which the committees' activity level is assessed. Its effectiveness is reflected by the ability of the members to conduct their oversight activities appropriately. The committee's activity level is very important to the extent that it cannot be fully effective in its absence, irrespective of whether or not the committee has the appropriate composition and resources in place.

Karamanou and Vafeas (2005) recommends that an audit committee which meets regularly is likely to carry out its oversight function effectively, whereas Li, Mangena, and Pike (2012) asserts that active audit committees with regular meetings in a year give its participants more chances to address and analyze the concerns presented to them about the financial reporting standards of the organization. Xie et al. (2003) state that effective monitoring is correlated with audit committees who hold more meetings within a given financial cycle. Also, Klein (2002) states that an active audit committee as determined by the meeting frequency is positively linked

to the latter's independence, and adds that its independence affects the committee's robustness in overseeing financial reporting. Therefore, it is arguable that an audit committee with regular meetings has an upper hand in successfully identifying and deterring earnings management practices that occur more regularly.

According to Choi, Jeon, and Park (2004), active ACs are highly probable than dormant committees to uncover earnings management. However, previous studies provide inconclusive output, for instance, Xie et al. (2003) and Vafeas (2005) found out that there is a significant negative correlation between the meeting frequency and earnings management, and a positive relationship between the rate of meetings and the value of earnings, while Yang and Krishnan (2005) evidence any significant relationship. In an Australian study, Davidson et al. (2005) and Baxter and Cotter (2009) also find no significant effect of audit committee meeting frequency on earnings management. Results from further studies conducted in Singapore and Malaysia also provide mixed findings, ranging from a negative correlation (Van Der Zahn & Tower, 2004; Yusof, 2009) to no relation (Abdul Rahman & Haneem Mohamed Ali, 2006) between the meeting frequency and earnings management.

*Ho: Audit committee meeting frequency has no significant effect on earnings management*

## Audit Committee Financial Expertise and Earnings Management

It is widely accepted that the audit committee's central role is often to evaluate the mechanism of financial reporting and achieve the best standards of financial statements. Therefore, the presence of the audit committee's accounting and financial skills will improve its productivity and capacity to identify and avoid earnings management. Specialized experience in auditing and accounting (financial expertise) therefore, is advantageous to the audit committee members in conducting an objective and meaningful analysis of accounting concerns given to them (Baxter & Cotter, 2009), examine different accounting procedures and figures, and in tackling the projections and expectations relating to accounting, in the implementation of new accounting policies (Beasley et al., 2009). The Sarbanes-Oxley Law and Act (2002) stipulates that a minimum of one member in the audit committee should be a financial expert, but to more advantage, if many members are financial experts in the AC.

Expertise in finance helps the audit committee representatives to recognize and raise intelligent concerns that task managers and external auditors for the realization of a greater degree of financial reporting (Bédard & Gendron, 2010). Additionally, S. Chen and Komal (2018) states that the financial experience of the AC has a positive and greater association with the quality of the earnings than does non-accounting financial experts. The literature demonstrates that the effectiveness of the AC is improved by the participation of a higher proportion of financial experts in the committee (Dhaliwal, Naiker, & Navissi, 2010; Naiker & Sharma, 2009). Xie et al. (2003) contended that companies wherein the ACs have financially experienced participants evidence lower earnings management.

Many U.S. based researchers found that higher financial expertise of audit committee members is characterized by reduced earnings management (e.g. Bédard et al., 2004; Bryan et al., 2013; Dhaliwal et al., 2010; Keune & Johnstone, 2012; Krishnan, Wen, & Zhao, 2011). According to Xie et al. (2003), there is a positive impact of expertise on the earnings quality, while using the quality of the earnings forecast as a quality measure. Karamanou and Vafeas (2005) indicate that financial expertise has a significant effect on the quality of reported earnings by also using earnings estimates as an indicator. Elsewhere, Choi et al. (2004) found out that there is lower earnings management if the audit committee has enough representation of the financial experts. The same output is evidence in the study of Woidtke and Yeh (2013) while using data from three East Asian countries and (Sharma, Sharma, & Ananthanarayanan, 2011) for New Zealand. In a study conducted in Germany, by Velté and Stiglbauer (2011), for situations in which more than 50 percent of the AC members are professionals, financial experience results in fewer earnings manipulation.

However, a few studies have indicated an insignificant effect of financial knowledge on earnings management (e.g. Ghosh, Marra, & Moon, 2010; Jamil & Nelson, 2011; Rainsbury, Bradbury, & Cahan, 2008; Song & Windram, 2004).

*Ho: Audit committee financial expertise has no significant effect on earnings management*

## Methods

The research focused on publicly trading firms at the Kenyan Nairobi Securities Exchange. Kenya suited the research context as it hosts one of the fastest-growing securities exchanges operating in an emerging market. The target population for the 65 firms listed at the NSE, while the data was obtained from the audited financial reports of firms that operated consistently for thirteen consecutive years between 2004 and 2017. The study adopted an explanatory research design and a panel approach towards arriving at the study's conclusions. A total of 35 listed firms participated in the study resulting in a total of 490 firm-year observations.

Earnings management was measured using discretionary accruals primarily as suggested by the modified jones model developed by Dechow, Sloan, and Sweeney (1995). Accrual is the difference between the reported earnings and cash earnings during the period (Singh et al., 2016). According to Healy (1985), accruals are further broken down into non-discretionary and discretionary (NDA + DA), where non-discretionary accruals are the accounting adjustments made by the management on the firm's cash flows and is mandated by the accounting standard-setting bodies, while discretionary accruals refers to the cash flow changes selected by the management. Discretionary accruals were given by the residuals of the OLS regression model, where the variables were lagged by total assets to avoid heteroscedasticity problem.

$$\frac{TA_{it}}{A_{it-1}} = \alpha_1 \frac{1}{A_{it-1}} + \alpha_2 \frac{\Delta REV_{it} - \Delta REC_{it}}{A_{it-1}} + \alpha_3 \frac{PPE_{it}}{A_{it-1}} + DA_{it}$$

Where:

$TA_{it}$  Refers to the Total Accruals in year t

$A_{it-1}$  Refers to firm i's Total Assets at the end of year t-1

$\Delta REV_{it}$  Refers to firm i's revenues in year t less revenue in year t-1

$\Delta REC_{it}$  Refers to firm i's Receivables in year t fewer receivables in year t-1.

$PPE_{it}$  Refers to the gross property plant and equipment at the end of year t

$\alpha_1, \alpha_2$  and  $\alpha_3$  are the firm-specific parameters

$DA_{it}$  is the Discretionary Accruals for firm i for year t

Total accruals are the Net income less cash flow from operating activities

Audit Committee Independence (ACI) is defined as the presence of independent directors in the audit committee (Singh et al., 2016) and was measured by the total number of independent audit committee directors divided by the total number of directors participating in the audit committee (Al-dhamari, Ismail, & Izah, 2017; Ali Shah, Butt, & Hassan, 2009; Klein, 2002; Mohamed Yunos, Ismail, & Smith, 2012; Singh et al., 2016).

Audit Committee Meeting Frequency (ACMF) refers to how often members meet to discuss various issues facing a firm (Katmon & Al Farooque, 2017). This was measured as the number of audit committee meetings

held during the year used (Al-dhamari et al., 2017; Katmon & Al Farooque, 2017; Kolsi & Grassa, 2017; Singh et al., 2016).

Audit Committee Financial Expertise (ACFE) refers to the financial qualification and competencies of the members. It is measured as the proportion of audit committee directors who are members of an accounting association or body to the total number of audit committee directors in line with Al-dhamari et al. (2017) and (Huang, Rose-Green, & Lee, 2012).

The research controlled for firm size (FS), which is the natural log of total assets. The study controlled for firm size because larger companies are expected to have a more efficient oversight mechanism and risk more public scrutiny(Bédard et al., 2004; Dechow et al., 1995). Small businesses are also anticipated to be involved in earnings management to cover their higher marginal costs compared with large businesses that benefit from economies of scale (J. W. Lin, Kang, & Roline, 2009).

Firm age (FA)is the time that a firm has been in operation, and it has an implication on its level of earnings management practices. Different managerial and firm motives motivate this. According to Lee and Masulis (2011), managers of more mature companies have fewer opportunities to generate higher earnings artificially, indicating a negative relationship between company age and earnings management. Young firms are more likely to require external financing, which may give them added motivation to manipulate earnings (Desai, Hogan, & Wilkins, 2006). It is measured by the year of observation minus the establishment date of the company.

A Pearson moments correlation coefficients were further used to check for associations between the research variables and a multiple panel regression model to test the hypotheses at a 0.05 significance level. The overall panel regression model is specified as;

$$EM_{it} = \beta_0 + \beta_1 FSIZ_{it} + \beta_2 FA_{it} + \beta_3 ACI_{it} + \beta_4 ACMF_{it} + \beta_5 ACFE_{it} + \varepsilon_{it}$$

Where:

EM = Earnings Management

ACI = Audit Committee of Independence

ACMF = Audit Committee Meeting Frequency

ACFE = Audit Committee Financial Expertise

FSIZ = Firm Size

FA = Firm Age

$\beta_0, \dots, \beta_5$  = Coefficients of the equations

$\varepsilon$  = error term

t = time

i = Firm

## Results

Table 1 indicates that the total number of observations for the study was 490. The findings further show that earnings management had a mean (median) of -0.138 comparable with the findings in Puat Nelson and Devi (2013) and Albersmann and Hohenfels (2017), where they found a negative average discretionary accrual. This is an indication that the firms get involved in earnings management practices and that, on average, they practice

income-decreasing earnings management though at minimum levels. The same findings were also evident in Hassan and Ahmed (2012) where they stated that on average, the sample firms manage accruals downwards (income-decreasing accruals) and their average value over a significant stretch ought to be close to zero (Tehranian, Cornett, Marcus, & Saunders, 2006).

The Audit Committee Independence (ACI) had a mean of 85.3% signifying a good representation of the outside executives within the audit committee. This is comparable with the proportion evident in a study conducted by Klein (2002) on publicly-trading US firms that operate within the NYSE, where the study found out that, on average, 80% of members in the Audit Committee were independent. The higher percentage also supports the findings of Sun, Lan, and Liu (2014).

The Audit Committee Meeting Frequency (ACMF) had a mean of 4 meetings per year, similar to the findings in previous studies of Albersmann and Hohenfels (2017) and Buallay and AlDhaen (2018). This is largely due to the fact that most of the companies in the NSE stick to quarterly meetings as a policy. Buallay and AlDhaen (2018) in a study using firms listed in the Gulf Cooperation Council (GCC) realized an average of 4.38 yearly meetings and suggested that there should be at least four meetings per year conducted by the AC, while Albersmann and Hohenfels (2017) recommended between 4 to 5 meetings per year.

Firm size had a mean of 7.056, meaning firms operating at the NSE are heterogeneous in terms of size and were highly dispersed from the mean, thus suggesting the need to control for the variable in the study while firm age had a mean of 67.7 years.

*Table 1: Descriptive Statistics Results*

Variable	Obs	Mean	Std. Dev.	Min	Max
EM	490.000	-0.138	0.842	-3.401	1.997
ACI	490.000	0.853	0.234	0.100	1.000
ACMF	490.000	4.080	2.283	1.000	15.000
ACFE	490.000	0.336	0.179	0.100	1.000
FS	490.000	7.056	0.713	4.806	8.747
FA	490.000	67.700	27.505	18.000	148.000

Table 2 indicates that audit committee independence (ACI) has a negative and significant ( $r = -0.285, p < 0.01$ ) association with earnings management. This output concurs with that realized in the previous studies of Elijah and Ayemere (2015) and Latif and Abdullah (2015), where they found out that more independence in the AC reduces earnings management. The audit committee meeting frequency (ACMF) has a negative and significant ( $r = -0.448, p < 0.01$ ), indicating that as the number of meetings held annually by the audit committee increases, earnings management significantly decreases. This agrees with the findings of Katmon and Al Farooque (2017) and Albersmann and Hohenfels (2017), where they also realized a negative relationship between the number of meetings conducted by the AC and earnings management.

Audit committee financial expertise (ACFE) indicated a negative and significant ( $r = -0.619, p < 0.01$ ) association with earnings management. The results are comparable with those realized in the previous studies (e.g. Albersmann & Hohenfels, 2017; Katmon & Al Farooque, 2017; Puat Nelson & Devi, 2013; Vafeas, 2005), where they found out that the larger the proportion of financial expertise in the audit committee, the lesser is earnings management. Firm size showed a positive and significant ( $r = 0.123, p < 0.01$ ) association with earnings management. This is interpreted to mean that large firms are more likely to engage in earnings management practices as compared to small firms. These findings were also evident in the previous study of Puat Nelson and Devi (2013). The output also indicated that firm age is positively and significantly ( $r = 0.219, p < 0.01$ ) correlated with earnings management.

Table 2: Correlation Results

	EM	ACI	ACMF	ACFE	FS	FA
EM	1					
ACI	-0.285	1				
ACMF	-0.448	0.099	1			
ACFE	-0.619	0.069	0.507	1		
FS	0.123	0.157	0.118	0.016	1	
FA	0.219	-0.195	-0.036	-0.110	-0.176	1

The regression results in Table 3 shows that Audit Committee Independence (ACI) has a negative and significant effect ( $\beta = -0.813$ ,  $q < 0.05$ ) on earnings management. The independence of the audit committee has a significant effect on earnings management. The audit committee acts as a corporate governance mechanism on matters concerning financial reporting. Its independence from the influence of management depends on the ratio of the outside directors who bring in an independent oversight role within the firm. It follows, therefore that, a higher proportion of outside directors in the audit committee provides more independent monitoring, thus the observed reduction managerial manipulation of reported earnings. The results concur with the findings in previous studies (e.g. Hassan & Ahmed, 2012; Klein, 2002; Latif & Abdullah, 2015; Mohd Saleh, Mohd Iskandar, & Mohid Rahmat, 2007; Tehranian et al., 2006), where they found out that the independence of the audit committee reduces earnings management in a firm.

Audit Committee Meeting Frequency (ACMF) has a negative and significant effect ( $\beta = -0.028$ ,  $q < 0.05$ ) on earnings management. The number of meetings held by the audit committee in a year significantly affects managerial engagement in earnings management. An increase in the frequency of meetings held by the AC means a higher level of activeness of the AC, thus limiting the management from manipulating earnings to suit their desires. However, for efficiency and effectiveness purposes, the meetings should not be too many to magnify the agency costs of monitoring and create a conflict of interest, respectively, since the members' interests in attending the meetings will be diverted from that of the firm. In contend, Albersmann and Hohenfels (2017) suggested 4 to 5 meetings per year as enough frequency to reduce earnings management. Xie et al. (2003) find that an AC that meets regularly becomes better supervisors in overseeing the financial reporting process. Equally, other studies such as Vafeas (2005) and Cornett et al. (2009) also found out that more meetings reduce earnings management.

Audit Committee Financial Expertise (ACFE) has a negative and significant effect ( $\beta = -2.064$ ,  $q < 0.05$ ) on earnings management. The financial expertise of the audit committee has a significant effect on earnings management. A higher proportion of members in the AC with financial expertise provide the necessary monitoring mechanism to assess and evaluate the financial reports towards detecting manipulated earnings. This, therefore, reduces opportunistic earnings management within the firms. Abdul Rahman and Haneem Mohamed Ali (2006) stated that the financial expertise of the audit committee members is associated with lower levels of earnings management. Additionally, Vafeas (2005) and Puat Nelson and Devi (2013) also documented that a greater proportion of financial expertise deters earnings management practices.

The control variable Firm size (FS) had a positive and significant ( $\beta = 0.171$ ;  $p = 0$ ,  $q < 0.05$ ) effect on earnings management. Large firms manage earnings more as compared to small firms. This is because the management of large firms is under intense pressure to produce impressive results. The management, therefore, will manage earnings upwards or downwards to suit their targets. These findings concur with those found in Klein (2002), Xie et al. (2003), Puat Nelson and Devi (2013), and (San Martín Reyna, 2018), who found out that firm size has a positive and significant effect on earnings management.

Firm Age (FA) has a positive and significant ( $\beta=0.006$ ,  $p<0.05$ ) effect on earnings management. Older firms engage in more earnings management compared to young firms. The firms' life cycle justifies the fact that they perform well during early stages and experience continued growth, until the declining and maturity phase where they are older enough to start experiencing declining performance, managers under pressure to register continued growth in performance are compelled to engage in earnings manipulation to maintain a good false image of the firm.

*Table 3: Regression Results*

Random-effects GLS regression						Number of obs = 490
Group variable: firmid						Number of groups=35
R-sq: within = 0.5806						Obs per group:min=14
between = 0.3956						avg = 14
overall = 0.4983						max = 14
corr(u_i, X) = 0 (assumed)						Wald chi2(2) =644.94
						Prob> chi2 = 0.000
EM	Coef.	Std.Err.	z	P>z	[95% Conf. Interval	
ACI	-0.664	0.114	-5.810	0.000	-0.889	-0.440
ACMF	-0.095	0.011	-8.300	0.000	-0.118	-0.072
ACFE	-2.275	0.153	-14.860	0.000	-2.575	-1.975
FS	0.111	0.054	2.060	0.040	0.005	0.217
FA	0.004	0.002	1.560	0.118	-0.000	0.009
_cons	0.541	0.416	1.300	0.193	-0.274	1.356
sigma_u	0.426					
sigma_e	0.424					
rho	0.502				(fraction of variance due to u_i)	

## Discussion

An effective audit committee proves to reduce managerial discretionary accruals management. More independence, more meeting frequency (activity), and higher financial expertise increase the AC effectiveness. The audit committee's independence is an effective corporate governance mechanism that aids in constraining earnings management in a firm. A higher proportion of independent members in the audit committee is preferable as an effective monitoring mechanism on matters about financial reporting. The higher the number of meetings held in a year by the audit committee means a decrease in earnings management. A higher frequency of the audit committee meetings signifies a higher level of activeness in detecting earnings management in a firm as compared to a dormant committee. A higher proportion of members with financial expertise translate to lesser earnings management in a firm. Financial experts in the audit committee heighten the propensity of the committees' ability to assess and evaluate objectively the financial reports and accounting issues presented to them since they are knowledgeable of the various accounting methods that require managerial discretion in reporting.

As a means towards reducing earnings management, a higher and clear proportion of independent members in the audit committee is preferable for an independent oversight role. The audit committee meeting frequency is an important aspect of the level of activity in the audit committee. Firms should, therefore, put more emphasis on the meetings held by the audit committee as a means of ensuring active monitoring of financial reporting in the firm. There is a need to boost the representation of members with financial expertise in the audit committee to achieve quality financial reporting with low levels of earnings management.

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# Leadership Practice for Building Trust of Followers: Decisive Factors of Organizational Performance

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Purpose - Leadership plays a decisive role in key organizational outcomes. To investigate the effects of leadership and its mechanism on organizational performance, this paper examined how transformational leadership impacts followers' trust for improving operational and financial performance in the case of Vietnamese firms.

Design/Methodology - This study used the Structural Equation Modeling to assess the correlation among the constructs based on using survey data of 285 employees at 60 manufacturing and service companies.

Findings - The findings revealed that employees' trust in leadership acts as a mediating mechanism in the relationship between transformational leadership and organizational performance. The transformational leadership style of leaders has greater effects on financial performance, while employee's trust has larger effects on operational performance. This study calls attention to the importance of raising employee trust to link transformational leadership and organizational performance.

Practical and theoretical implications - From a practical point of view, the paper brings more knowledge and insights for CEO/managers on the right pathway to enhance organizational performance. The paper also provides theoretical initiatives on the leadership theory and the new pathway to promote operational and financial performance.

## Introduction

Organizational performance (OP) is critical to the firm's competitiveness and survival in today's competitive environment (Z. Wang, Sharma, & Cao, 2016). Leader and their firms are trying to improve OP as an effective way to respond to the competition and change of business environment (Ramezan, Sanjaghi, & Rahimian Kalateh, 2013). Organizational performance has become a significant issue and attracted much interest from many scholars (Brown, Gray, McHardy, & Taylor, 2015). However, majority of the previous studies in this field pay particular attention to the effects of firm-level factors (such as capital, and labor inputs) in deciding organization performance without paying attention to the role of employee behavior which has clear impacts on OP, especially employee's trust in leaders (Brown et al., 2015). Moreover, after completely reviewing literature on the topic of leadership style, we recognized that transformational leadership (TL) is widely accepted as one of the most powerful leadership styles for key organizational outcomes (Ha, Phong, & Hui, 2019; Le & Lei, 2017, 2018a; Lei, Phouvong, & Le, 2019). Transformational leaders motivate their employees to gain the highest levels of accomplishment for both managerial performance and OP (Garcia-Morales, Matias-Reche, & Hurtado-Torres, 2008; Le & Lei, 2018a; T. T. Nguyen, Mia, Winata, & Chong, 2017). So, this study will illuminate the role and impact of TL on the trust of employees in their leaders aimed at improving OP.

As the aforementioned, TL and trust in leaders were found having a relationship with OP, there has been a insufficiency of study on how leadership links with aspects of employee's trust in leadership (Le & Lei, 2018a; Le, Lei, & Than, 2018) which in turn connects with components of OP namely operational and financial performance (Brown et al., 2015). This restricted our knowledge of the condition or mechanism according to which transformational leaders can establish the trust of employees in them and then effectively affect aspects of OP. For such reason, further theoretical or practical evidence on the relationship among these constructs is needful to solidify the relationship among them and generate valuable understanding for managers. Consequently, the paper is produced to elucidate TL's impacts on operational and financial performance via the mediating mechanism of specific types of trust in leadership. We believe that the paper will significantly contribute to increasing the leadership theory by clarifying how TL practice can stimulate employee's trust for the goal of enhancing OP. The paper will make an effort to address three research questions as follows.

- Does TL create significant impacts on OP?
- Does TL create different impacts on firm operational and financial performance?
- Do aspects of the trust of employees mediate the effects of TL on OP?

To address the research questions above, the paper applied structural equation modeling (SEM) to evaluate the extent of the effects of TL and employees' trust on specific elements of OP through the data of 285 respondents of 60 manufacturing and service companies in Vietnam. First, the paper conducts an adequate review of the related literature and provides the empirical proof for the correlation between TL, employees' trust in leadership, and OP in an integrated model. Second, the paper does not merely calculate the direct impacts of TL and employees' trust in leadership but also investigate clearer the TL's indirect influence on OP. In general, the paper is expected to bring specific initiatives and effectual directions for managers to boost operational performance and financial performance of firms.

## Literature Review

### Transformational Leadership and Trust in Leadership

Scholars defined transformational leadership as one of the styles of leadership to describe the features of leaders such as communicating clearly about organizational goals; serving as the leading factor of organization; involving actively in coaching employees; caring for improving new skills among employees and unendingly

looking for new opportunities to bring the development for organization (Chen, Jermias, & Lee, 2013; B. P. Le et al., 2018; Lei, Nguyen, & Le, 2019). Transformational leaders value the role of the employees and view them as a decisive resource of the organization. They highly evaluate the significant roles of values, emotions, and leadership in fostering creative and positive behaviors of employees (Bass & Avolio, 2000; Le & Lei, 2017, 2019). Bass (1985) found that TL practice could not only inspire and prompt the followers to work beyond an organization's expectations but also promote an employee to attain their highest potential for organization development. For such reason, TL theory has appealed great interest among scholars and emerges as one of the most powerful leadership styles (Ha et al., 2019; Le & Lei, 2018a). As a result, evaluating the influences of TL on aspects of employees' trust will bring more useful understandings for managers to develop employee's trust in them.

Trust expresses the level of belief of individuals on the other according to which they put their belief in the competence of the other as well as the willingness to act in a fair, ethical and predictable manner (Nyhan, 2000). According to Bligh (2017), trust can be seen as the individual's expectation or belief where he or she can rely on actions and words of the other, and believing that the other person has good intentions to carry out the promises. Scholars pointed out many types of trust of employees in organizations, for example, and organizational trust, interpersonal trust, trust in leadership, and peer trust (Joseph & Winston, 2005; Le & Lei, 2018a). However, to explore how TL practice can bring employees trust in leadership, this study focuses on examining the correlation between TL and aspects of trust in leadership. The findings of this investigation will bring significant managerial implications because successful leaders must have the ability to establish and maintain the trust of employees through giving employees the positive perceptions of their character and behavior (Bennis, Covey, Wheatley, & Bogle, 2002).

According to Schoorman, Mayer, and Davis (2007), the trust of employees in leadership is their enthusiasm and willingness to take on vulnerability due to their positive expectations of the leader's intentions. Scholars separated trust in reliance-based trust and disclosure-based trust (Gillespie, 2003; Le & Lei, 2018a). Where reliance-based trust reflects the readiness of individuals to rely on work-related skills, abilities, and knowledge of another and disclosure-based trust reflects the readiness of individuals to disclose work-related sensitive aspects, personal opinions, and information to another. This study uses these two aspects of individual trust to investigate the employees' trust in leadership because they lessen the risk and vulnerability which are inherent characteristics of trust (Le & Lei, 2018b). In addition, these aspects of trust were specifically designed to calculate the decision or degree of employee trust in leadership (Dietz & Hartog, 2006; Le & Lei, 2017, 2018a).

Many prior studies provided support and evidence for the positive correlation between TL and the trust of employees in leadership. Harms and Credé (2010) found that transformational leaders are good mentors to nurture positive emotions and trustworthy culture in an organization. Scholar showed that if employees have an awareness of TL behavior in their leaders, they will have a higher degree of trust in their leadership (Holtz & Harold, 2008). In particular notes, scholars revealed that leaders have very significant impacts on both aspects of employee's trust in them in term of disclosure-based trust and reliance-based trust (P. Lee, Gillespie, Mann, & Wearing, 2010). Dirks and Ferrin (2002) reported the significant and positive effects of TL on the trust of employees in the leaders. According to MacKenzie, Podsakoff, and Rich (2001), TL practice by individualizing support and fostering acceptance of common goals will have a positive relation with trust in the leadership. Recently, Asencio (2016) argued that TL practice could motivate employees to follow and achieve the goals and vision of the organization, through which enabling leaders to develop employee trust in leaders by communicating attainable goals and an inspiring organizational vision. (Yasir, Imran, Irshad, Mohamad, & Khan, 2016) also showed TL's positive influences on employee's trust in leaders.

In general, the above arguments provide supports for the clear influences of TL on trust in leaders. However, Le and Lei (2018b) indicated that there had been a shortage of research on how leadership links with aspects

of trust in leaders. This limits our understanding of the different ways leaders may establish employee's trust in them (P. Lee et al., 2010). So, we propose the following hypotheses:

H1a.b: TL has positive impacts on disclosure-based trust and reliance-based trust in leadership.

## Transformational Leadership and Organizational Performance

The OP has various meanings for different people because the essence of OP is multi-faceted (Ramezan et al., 2013). Moreover, measuring performance seems to be more complex due to the different expectations of stakeholders about the firm's economic, social, and environmental responsibilities change (Hubbard, 2009). According to Madella, Bayle, and Tome (2005), OP reflects the capability of an organization in acquiring and handling resources of finance and physic, and properly human aimed at achieving the key targets of the organization. Research of I. A. Lee (2008) considered OP as the result of implementing the strategy of an organization. It makes a deal of the output of an organization which measured against organizational intended objectives and goals. Tsai and Yen (2008) paid more attention to the roles of market and financial performance in evaluating OP. The current study uses operational and financial performance to evaluate OP as they are the crucial constituents of OP, and they have critical impacts on firm competitiveness and survival (Z. Wang et al., 2016). Regarding operational performance, it reflects the success in the mix and amalgamation of the customer satisfaction, cost management, quality development, responsiveness, and productivity; while financial performance manifests the capacity of a firm in using estates assets to bring about revenues as indicated by the financial statements of organizations (Z. Wang et al., 2016).

TL is a key factor that had apparent and positive influences on OP. Many previous types of research had explained for this conclusion (Bass, 1985; Garcia-Morales et al., 2008; Judge & Piccolo, 2004; T. T. Nguyen et al., 2017; Pearce et al., 2003; Tushman & Nadler, 1986). Specifically, according to Bass (1985), OP is fostered by transformational leaders' capabilities of motivating and inspiring individuals to work and attain outcomes beyond expectations. They build systems that provision direction, vitality, and energy to the organization, constituting good states and conditions for improving knowledge and innovation capability in the organization to promote OP (Tushman & Nadler, 1986). Judge and Piccolo (2004) proved that transformational leaders have positive relationships with leader job performance and organizational performance, they primarily motivated followers toward the achievement of the goal in and of itself, with or without the rewards following the outcome (Pearce et al., 2003). Garcia-Morales et al. (2008) suggested that high performance in the organization is shaped by creating an organizational climate that is stimulated by the practice of TL. Recently, the meta-analytic study of scholars showed that TL was strongly and positively related to OP (G. Wang, Oh, Courtright, & Colbert, 2011), and needed for better OP (Thomson, Rawson, Slade, & Bledsoe, 2016). In line with these assessments, T. T. Nguyen et al. (2017) stated that TL influences OP by promoting incremental contributions of followers through exerting efforts further than the call of duty.

In short, the above discussions support the significant and positive impacts of TL on OP. Nevertheless, to bring deeper the understanding or knowledge of how TL affects operational and financial performance, we test the following hypotheses:

H2a.b: TL is positively associated with operational and financial performance.

## Trust in Leadership and Organizational Performance

The trust among individuals is a core basis for confirming the effectiveness and success of an organization (Cook & Wall, 1980). Many prior types of research have shown the evidence for the positive effects of employee's trust in leadership on firm performance (Asencio, 2016; Brown et al., 2015). Specifically, according to Dirks and Ferrin (2002) employees who have high trust in their leaders will become more comfortable to act in a way that may set them at risk in the relationship with their leaders due to sharing sensitive information or

admitting mistakes. They also tend to satisfy their leaders by working hard on required tasks and performing beyond standards Dirks and Ferrin (2002), which in turn leads to increase OP. (Mayer & Gavin, 2005) demonstrated that trust in leaders related to employee's ability to focus attention on value-producing activities which in turn have positive impacts on firm performance. Cho and Poister (2014) showed trust in leadership is directly related to firm performance or indirectly affect performance through teamwork. More specifically, Brown et al. (2015) provided insight into how trust in leaders can conduce to a participation and co-operation or reduce costly resistance to enhance productivity and firm performance. Their empirical findings showed a positive relationship between employee's trust in leaders and three measures of workplace performance: financial performance, labor productivity, and product or service quality. Most recently, Bligh (2017) study of leader and trust indicated that firm performance is one of the important outcomes of trust in leaders. Moreover, the existing empirical research also proposed that trust in leaders mediates the relationship between transformational leadership styles and firm performance (Asencio, 2016; Dirks & Ferrin, 2002; Podsakoff, MacKenzie, Moorman, & Fetter, 1990).

Although the above arguments showed the significant impacts of employee trust in leadership on OP, it is still a lack of study that investigated how aspects of employee trust in leadership are related to operational and financial performance, especially in the context of an emerging country like Vietnam. Accordingly, the following hypotheses are tested:

H3a.b.c.d: Disclosure and reliance-based trust of employees in leadership are significantly associated with operational and financial performance, respectively.

## Research Methodology

### Sample and Data Collection

The paper used a convenience sampling method to collect data during the period from May to September 2019. The survey data were gathered from 60 manufacturing and service companies in some most developed provinces of Vietnam, such as Danang, Hochiminh, and Hanoi. The authors have interacted with representatives of firms through the phone and making personal visits to explain and request their support for gathering the questionnaires. The participants need to be managers and team leaders to ensure having a full understanding of the constructs in the research. Measurement scales are collected from current literature to develop the initial list of items. Five hundred questionnaires were sent to participants and received back 320 ones. After removing invalid questionnaires, there were 285 valid ones, with a 57.0 % validity rate.

### Variable Measurement

Multiple items measure all the variables in this research. These items are calculated through five-point of Likert, which range from "1" to "5" (from strongly disagree to strongly agree or from strongly unwilling to strongly willing to).

*Transformational leadership* is calculated by four items origin from the research of (Garcia-Morales et al., 2008). *Trust in leadership* is calculated by ten items originated from the work of Gillespie (2003), which were also used by (Le & Lei, 2018b). In which reliance-based trust is measured by five items to evaluate the perceptions of managers about "employees' willingness to rely on their work-related skills, abilities, and knowledge," and disclosure-based trust is measured by five items to evaluate the perceptions of managers about "employees' willingness in disclosing work-related sensitive aspects or personal opinions and information to the leaders" (Le & Lei, 2018b). Finally, *Organizational performance* is measured by 11 items adapted from previous research (Z. Wang, Wang, & Liang, 2014). OP is separated into operational performance and financial performance. Operational performance is calculated based on five items that evaluated the successful level of companies in obtaining "customer satisfaction, quality development, cost management, responsiveness, and productivity."

Financial performance is measured by six items which estimate the capacity of companies in using assets to create revenues exhibited by their financial statements.

*Control variables.* Firm size is measured by several employees' acts as a controlling factor to account for variance among companies, and their potential influences on OP.

## Data Analysis and Results

### Measurement Model

The paper first examined the reliability of the measures for the constructs by examining the individual Cronbach's alpha coefficients ( $\alpha$ ), with the result's statistics ranging from 0.83 to 0.96, which were all higher than the recommended level of 0.7 (Nunnally & Bernstein, 1994).

The paper then performed a confirmatory factor analysis to assess convergent and discriminant validity. The paper adopted three primary measures to evaluate convergent validity (Hair, Black, Babin, Anderson, & Tatham, 2006):

1. the factor loadings of latent variables must be statistically significant and higher than 0.6;
2. composite reliability (CR) needs to be higher than 0.7, and
3. the average variance extracted (AVE) must be higher than 0.5.

Table 1 shows that all factor loadings are greater than 0.6; CR values exceed 0.7, and the AVE values are greater than 0.5. On the whole, all the measurements showed adequate convergent validity.

Table 1 -Convergent validity and reliability

Construct	Mean	SD	AVE	CR	$\alpha$
Transformational leadership (TL)	3.48	0.51	0.56	0.83	0.83
Reliance-based trust (RT)	3.58	0.58	0.75	0.93	0.93
Disclosure-based trust (DT)	3.46	0.60	0.72	0.93	0.93
Operational performance (OPP)	3.71	0.61	0.82	0.96	0.96
Financial performance (FIP)	3.71	0.56	0.75	0.95	0.95

Notes:  $\alpha \geq 0.7$ ; composite reliability  $\geq 0.7$ ; average variances extracted  $\geq 0.5$ ; \*\*\* Significant at  $p < 0.001$ .

The authors continue using the measure of AVE as a suggestion of Fornell and Larcker (1981) to examine the discriminant validity by comparing the AVE's square root and the correlations among the latent constructs Table 2.

Table 2- Correlations and average variance extracted

Constructs	TL	RT	DT	OPP	FIP	FS
TL	<b>0.75</b>					
RT	0.53	<b>0.86</b>				
DT	0.52	0.48	<b>0.85</b>			
OPP	0.63	0.65	0.59	<b>0.91</b>		
FIP	0.64	0.59	0.58	0.60	<b>0.87</b>	
FS	0.05	0.03	0.01	0.04	0.05	<b>1</b>

Note: Diagonal elements in bold are the square root of the AVE, and Off-diagonal elements are the correlations among constructs.

Table 2 indicated that AVE's the square root of each factor (diagonal elements in bold) is higher than the correlations of the other factors in the research model. In other words, the results strongly support the construct reliability, convergent, and discriminant validity of the scales.

To assess the measurement model fit, this study evaluates the fit indicators of the CFA model. Table 3 indicated that all fit indices met satisfactory levels. Therefore, we can state that the model fits the data which can interpret the research hypotheses.

*Table 3 - Overall fit index of the CFA model*

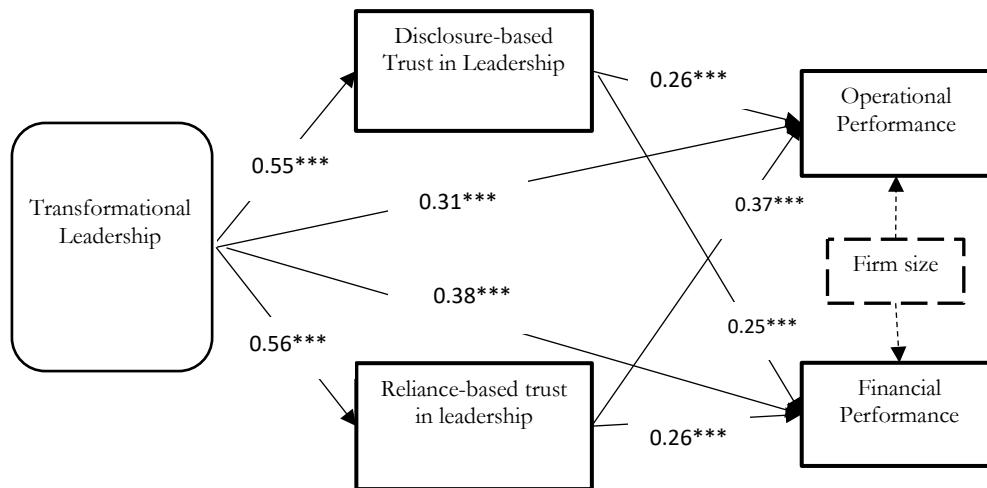
Fit index	Scores	Recommended threshold value
Absolute fit measures		
CMIN/df	1.210	$\leq 2^a$ ; $\leq 5^b$
GFI	0.920	$\geq 0.90^a$ ; $\geq 0.80^b$
RMSEA	0.027	$\leq 0.08^a$ ; $\leq 0.10^b$
Incremental fit measures		
NFI	0.953	$\geq 0.90^a$
AGFI	0.900	$\geq 0.90^a$ ; $\geq 0.80^b$
CFI	0.992	$\geq 0.90^a$

Note: a Acceptability: acceptable; b Acceptability: marginal

## Direct Effect Analysis

Figure 1 and Table 4 - Structural model results report that all the direct influences of TL and employees' trust in leadership on aspects of OP are quite large and statistically significant. So, all the proposed hypotheses are confirmed. Specifically:

For hypothesis H1a.b, the results showed that TL's influences on employee's trust in leaders are very strong. It also showed that there is no much difference in the effects of TL on two aspects of trust in leaders. Specifically, TL's impact on disclosure-based trust in leadership has coefficient value of 0.557 ( $p$ -value < 0.001), its impact on reliance-based trust in leadership has coefficient value of 0.565 ( $p$ -value < 0.001)



*Figure 1 - The structural model*

Note: \*\*\*  $p$  < 0.001; ---- Non-significant paths.

Table 4 - Structural model results

Hypotheses	Proposal effect	Estimate	P	Results
H1a: TL → DT	+	0.557***	<0.001	Supported
H1b: TL → RT	+	0.565***	<0.001	Supported
H2a: TL → OPP	+	0.314***	<0.001	Supported
H2b: TL → FIP	+	0.382***	<0.001	Supported
H3a: DT → OPP	+	0.260***	<0.001	Supported
H3b: DT → FIP	+	0.251***	<0.001	Supported
H3c: RT → OPP	+	0.370***	<0.001	Supported
H3d: RT → FIP	+	0.267***	<0.001	Supported
Control variables	Effect	Estimate	P	Results
FS → OPP	+	0.012	0.769	Not supported
FS → FIP	+	0.028	0.514	Not supported

Note: \*\*\*significant at the 0.001 level; \*\*significant at the 0.005 level.

For hypothesis H2a.b, the results revealed that TL's influence on financial performance (coefficient value 0.382;  $p$  value  $< 0.001$ ) is larger than its influence on operational performance (coefficient value of 0.314;  $p$  value  $< 0.001$ ).

For hypothesis H3a.b.c.d, the results showed that both disclosure-based trust and reliance-based trust in leaders have greater impacts on operational performance compared with financial performance. Specifically, disclosure-based trust influences operational and financial performance with coefficient values of 0.260 and 0.251 ( $p$ -value  $< 0.001$ ), respectively. Reliance-based trust influences operational and financial performance with a coefficient value of 0.370 and 0.267 ( $p$ -value  $< 0.001$ ).

The results of the hypotheses tests were obtained after assessing the control role of firm size. The results did not support the control role of this variable because its effects on OP is not statistically significant (see Table 4).

### Indirect Effect Analysis

To explain and show the evidence on the indirect effects or mediating mechanism of employee's trust in leadership, the paper performs bootstrap confidence intervals method as a recommendation of Preacher and Hayes (2008) to check for the indirect effect's extent and the statistical significance (Table 5).

Table 5 - Direct, indirect and total effects analysis

Path	Direct effects	Indirect effects	Total effects	Bias-corrected confidence intervals	
				Lower confidence level	Upper confidence level
TL → Trust → OPP	0.314***	0.351**	0.665	0.270	0.433
TL → Trust → FIP	0.382***	0.290**	0.672	0.215	0.391

Note: \*\*\*significant at the 0.001 level; \*\*significant at the 0.005 level.

Table 5 pointed out that the indirect impacts of TL on operational performance (value of 0.351) and financial performance (value of 0.290) are significant and lie in confidence intervals. Thus, Table 5 has confirmed the partial mediating influences of aspects of employees' trust in leadership in the TL-OP relationship. Moreover, the results also revealed that TL's total impact on financial performance is very significant, with a value of 0.672. It highlighted that the direct impact of TL on financial performance is very important (value of 0.382;  $p$ -value  $< 0.001$ ).

## Discussion

OP demonstrates the organization's success in a competitive environment (Hurduzeu, 2015; Z. Wang et al., 2016). Leaders and employee trust in leaders involved in behaviors that contribute to the firm's achievement of goals Van Wart (2011) and firm performance (Brown et al., 2015). It is hard to imagine a situation with more risk and vulnerability than the relationship between leader and employees without trust (Bligh, 2017). Trust becomes more meaningful in situations when one party is at risk or vulnerable to another party. For this reason, it becomes extremely valuable in relationships between leaders and employees, who have different roles and different levels of status and power (Bligh, 2017). In this context, the hypotheses that were developed in this article makes important contributions to both practical and theoretical initiatives on OP as well as the field of organizational behavior relating to employee trust by following specific reasons.

First, by performing a complete and sufficient review of current literature of the factors in the proposed research model, the paper has brought deeper understanding and knowledge of the relationship between TL, employee trust in leadership, and OP. The findings indicate the significant influences of TL and aspects of trust in leadership on OP. The basic reason for these results originated from the validity and effectiveness of TL styles (Le & Lei, 2018a; Thomson et al., 2016) and trust is a dynamic and interpersonal link between leaders and employees, so it is especially useful for creating a positive relationship between leaders and employees at the workplace (Bligh, 2017). The finding showed that TL has more significant impacts on financial performance in comparison with operational performance. In contrast, the results highlight that both aspects of trust in leaders have more impacts on firm operational performance compared with financial performance. Exploring and clarifying the relationships among leadership, trust, and OP will bring valuable and specific guidance and information for managers in leading and creating desired impacts on each aspect of OP. Based on the findings, some practical implications are proposed such as: To attain better financial goals (such as the return on investment and sales, the growth of profit and sales, and the average profitability) compared with the key competitor, CEO/managers need to pay great attention to practicing the TL style. Besides, to attain better firm's strategic goals (relating to customer satisfaction, quality development, cost management, responsiveness, and productivity) compared with the key competitor, CEO/managers need paying attention to build and maintain the employee trust strongly in them. However, both TL practice and building employee's trust have an important role in improving firm performance.

Second, by assessing the influences of TL on two aspects of trust in leaders in relation to OP, the article makes a considerable contribution to increasing knowledge of trust in leaders and OP. As disclosure-based trust and reliance-based trust in leaders reflect two different degrees of trust of an individual, which is "willing to disclose sensitive and important issues/information to the leaders" and "willing to rely upon ability/competence of the leaders." Two of these aspects of trust are specifically suitable to measure the difference of employee's behavior/attitude of trust in leaders, which help to reduce the vulnerability and risk that is inherent to trust (Dietz & Hartog, 2006). The full understanding of employee's different aspects of trust towards leaders will create favorable and effective conditions to improve OP. The empirical results show that TL has strong impacts on both two kinds of trust in leaders, which in turn have positive and significant influences on two components of OP. The finding implicates that, "willing to disclose sensitive and important issues to the leaders" enables transformational leaders to make right decisions which is useful and beneficial for OP; "willing to rely upon ability/competence of the leaders" enables transformational leaders to execute effectively intended goals relating OP because their followers will readily implement the leader's plans for belief of success. From these findings, the article highlights the important role of trust in leaders. As a result, to increase OP, CEO/managers need to increase awareness of the importance of building employee's trust in them by impacting the employee's positive perception of the leader's character Dirks and Ferrin (2002) such as valuing employees as a type of valuable asset and decisive resource of organization; caring for building and maintaining an emotional link with

employees and unendingly motivating them to follow and attain higher values; acting as the ideal leader and leading factor in organization; always looking for new chances creatively to bring organization the success and development in long term.

Third, this article contributes to filling the theoretical gaps by connecting TL, aspects of trust in leaders and OP in a model as the previous research's implications for future research to assess more specifically the effects of leadership on aspects of trust in leaders P. Lee et al. (2010) and OP Hassan and Hatmaker (2015) as well as estimate employee trust's impacts on components of OP (Brown et al., 2015). The empirical findings verified the mediating roles of two aspects of trust in leaders in the relationship between TL and OP, and highlight that TL practices will yield significant effects to operational and financial performance directly or indirectly through improving two specific aspects of trust in leaders. The finding brings more deeply understanding for CEOs/managers about the necessary factors as well as the new pathway to promote operational and financial performance.

Together with a significant contribution to the theory and practice, this research also has certain limitations. First, the paper utilizes the cross-sectional design, so it may have an ability which not reflects exactly causal relationships among the constructs in the long-run. A longitudinal study is needful to help us addressing this limitation and confirming the result of the study. Second, the results and the benchmarks in this article are strictly suitable only for Vietnamese contexts. Future research may implement in other contexts to provide a clear picture in terms of the relationship among these constructs. Third, recent research indicated that collaborative culture plays an important role in bringing firms key and positive outcomes (Lei, Le, & Nguyen, 2017; D. K. Nguyen, Phong, & Hui, 2019; Yang, Nguyen, & Le, 2018) where leadership serves as decisive antecedent (Lei, Do, & Le, 2019). Future research might bring a more valuable understanding of the determinant of OP by investigating how TL affects collaborative culture to improve OP.

Notwithstanding, the paper's findings have brought more insights and the theoretical initiatives on the relationship between TL, employees' trust, and OP. The paper has provided the empirical proofs that verified all proposal hypotheses and highlighted the significant roles of TL practice and employee trust in enhancing OP. In other words, the paper stresses the important roles of boosting TL style practices in building up the trust of employees in their leaders for strongly promoting organizations' operational and financial performance. Finally, the authors expected that future works would effectively address the limitations of current research and bring deeper insight into the roles and effects of TL and other determinants on OP.

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# Entrepreneurship, Professionalism and Leadership Intention of Generation Z: The Case of Kahta

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**Aim** - This study aims to measure the level of entrepreneurship, professionalism, and leadership intention of the Z generation. This effort is to investigate whether the socio-demographic characteristics of the Z generation, such as gender, education level, work experience, family income level, the presence of entrepreneurs in the family, or the immediate vicinity, leading to significant differences on the levels of entrepreneurship, professionalism and leadership intention.

**Methodology** – The simple random sampling method was used to collect data. A total of 563 questionnaires was collected for the study. The participants were mainly the students in high schools and vocational schools of higher education in the Adiyaman-Kahta district. SPSS statistical tool was used for analysis.

**Findings** - Cronbach's alpha value of the scale of entrepreneurship, professionalism, and leadership intention was measured as 0.89. Moreover, a significant difference between the socio-demographic characteristics of the Z generation participating in the study between entrepreneurship, professionalism, and leadership intention levels in terms of gender, education level, and work experience was found. However, there was no significant difference between entrepreneurship, professionalism, and leadership intent levels in terms of whether or not the family or immediate vicinity of Z generation is an entrepreneur or not, and in terms of the family income level is high or low.

**Originality** – This study will help policymakers to develop projects and training programs to promote entrepreneurship in the generation Z and following generations.

## Introduction

The concept of generation, which is used to define age groups born in a certain period, has begun to be examined from a narrow and sociological point of view. The generations that exhibit different characteristics depending on the experiences of their period show differences between them and also differ in their value, attitude, behavior, and work-life preferences. Today, although business life mostly consists of three generations as X, Y, and Z generations, those who will have the most impact on business life shortly are members of Z generation.

Generation Z members are thought to be individuals who prefer to do personalized, independent, and free jobs instead of regular employment due to their growth in technology. Therefore, the members of the Z generation can have different job preferences than the previous generations to be away from bureaucracy, to have flexible working opportunities, and to provide work-life balance. However, it should not be forgotten that these are only estimates, because they are not actively in business life, making it impossible to identify their strengths and weaknesses.

In this study, the intentions of the Z generation members who are not yet actively involved in working life were examined in terms of entrepreneurship, professionalism, and leadership. And the variables that affect these three competencies that the Z generation members need when planning their careers are tried to be determined. As a result of the study, opinions, and suggestions about increasing the entrepreneurship, professionalism, and leadership intentions of the Z generation were proposed.

## Literature Review

The generation assignment corresponds to a roughly 20-year period; Generation Z is individuals who were born between 1995 and 2015. Each of these generations is unique, liking and disliking, preferences, and work orientations (Betz, 2019). Su, Tsai, Chen, and Lv (2019) stated that the Gen Z population constituted 32% of the 7.7 billion global population in 2019. WHO (2017) report stated that the elderly population is increasing worldwide both in developed and developing countries. By 2050, the proportion of the elderly population globally is expected to increase to 22% (an estimated two billion older people) (Geyer & Louw, 2020). According to the aging population, it can be said that the young population consisting of the Z generation, which is expected to have a critical position in the business world of the future in developing or developed countries, has an essential place in terms of entrepreneurship, professionalism, and leadership.

Age groups that have similar beliefs, values, attitudes, and behaviors by being influenced by the social, political, cultural, and economic developments of the society they are in are called “generations” (Tekin, 2015, p. 1). Generations have been classified according to historical intervals and socio-cultural events as a result of researches conducted worldwide. Generally, the generations classified under five different groups are called Silent generations, Baby Boomers generations, X generations, Y generations, Z generations, and Alpha generations (Doganbas, 2017, pp. 68-69).

The generations' life, personalities, and business preferences differ depending on the political, social, cultural, and economic events experienced in his period. For example, because the Silent generation is a generation struggling to survive while being obedient to authority in business life, members of the generation Y, who have been influenced by technological developments, have exhibited an attitude that questions and criticizes the jurisdiction.

Generation Z, which is still in its educational period, has developed the characteristic features that distinguish it from other generations depending on the advances in technology. First of all, the rapid change has caused the Z generation to become individuals who consume quickly, get bored but are more open to innovations and

more curious to make a difference. The abundance of possibilities they have as a generation born with technology has caused Z generation to be active individuals, not passive, to think about results, and to be creative individuals that are intertwined with dreams.

For this reason, members of Generation Z are expected to choose to work in more personalized jobs rather than standard positions in the future and to remove geographical boundaries in business life (Aka, 2017, p. 56). Generation Z members who use advanced technology, who are confident and will work to be successful and win, are seen as the most diplomatic, expert, and inventive generation (Oral, 2013, p. 19; Seymen, 2017, p. 474). Therefore, after their education, they are thought to have high motivation to choose an entrepreneurial, professional, and leadership career.

Gen Z is more involved in today's digital world (Wilson, 2019). This generation is multitasking while using multiple technological devices at the same time (Geyer & Louw, 2020). Accordingly, for Z generation, who does not know and strangle the life before the Internet, to be successful in business life, it should also know the values and characteristics of the past business world. In this context, people who can create a vision by linking today and the future, and to overcome the challenges posed by a global demand in the best way, will be successful people in the business world (Akyuz, 2018, p. 45).

## Entrepreneurship, Professionalism and Leadership Intention

In today's rapidly changing conditions, career has become not only about being a civil servant or a profession but also about creating meaning based on a series of experiences and life experiences. This different meaning that started to be loaded into the career depends on the specific personality traits and abilities that people have. Today, when it comes to career, entrepreneurship, professionalism, and leadership are three essential structures in business life. Fabio, Bucci, and Gori (2016) state that entrepreneurship is now interpreted as a concept that encourages adaptation to change environment and innovations. They define the concept of leadership as moving an organized group towards targeted success. Professionalism, on the other hand, is mostly associated with professional knowledge and is explained as "the most proper and attentive work of a job, however, with the least errors" (Adiguzel, Tanriverdi, & Ozkan, 2011, p. 239). When academic literature is analyzed, it is seen that these three concepts are related to the individual's characteristics and environment. Researches made in the literature and utilized in this study are as follows:

Chan et al. (2012) investigated the effect of personality traits on entrepreneurship, professionalism, and leadership motivations in their work. The findings suggest that their personality traits showed that they had much more similar relationships with both professional and leadership than their professional job role motivations. In the study, a positive correlation was found between proactive and extroverted personality traits and entrepreneurship and leadership motivations.

A study by Oner, Onay, and Kocakoc (2016) use the EPL scale of Chan et al. (2012) to collect the data from 903 students at Celal Bayar University School of Applied Sciences, and the compatibility of the original scale with Turkish students was analyzed by two-step confirmatory factor analysis. The study concludes that if entrepreneurship, professionalism, and leadership skills are supported in university life, professional leaders and entrepreneurship intentions will develop positively.

Yuksel, Cevher, and Yuksel (2015) analyzed the relationship between entrepreneurial personality traits and entrepreneurship tendencies of business administration department students. The study concludes that besides the features such as innovation, sensitivity, and opportunism, gender and family professions have a positive effect on the entrepreneurship tendency.

Akyuz (2018), in his article titled “Strategic Leadership,” touched on the characteristics of people who exhibit leadership characteristics by the social, economic, and cultural changes encountered in parallel with the rapid changes in the 21st century. Especially in his article, which he developed on the concept of strategic leadership that stands out today, Akyuz states that there is a need for individuals who are flexible enough to keep up with the changes that follow the developments in their environment.

Doganbas (2017) examined the effect of transformational leadership over different generations because of the features they possess. This research was conducted with people working in various positions in different institutions in Ankara. The study findings suggested that the only transformational leadership dimension that affects job satisfaction is “mental encouragement.”

Tekin (2015) examined the X and Y generations from work and life, which show different characteristics due to their environment, in his master's thesis entitled “Investigating Generations in Work-Life and Attitudes towards Work.” In the study, first, the generations are introduced, then the fundamental values that affect the differentiation of the X and Y generations are examined. According to the survey, the most critical factors affecting generational differences are the developments in politics and technology.

Oral (2013) examined the characteristics and working styles of three different generations living together in business life in his master's thesis titled “Generations and Conflicts in Working Life.” In the study, it was determined that the characteristic of generation Y was not similar to the previous generations. As a result, it was determined that they had conflicts in business life. However, it was found that different generations tend to work together when the threat occurs.

Seymen (2017) has written an article titled “Associating Y and Z Generation Human Characteristics with the Ministry of National Education 2014-2019 Strategic Program and TÜBİTAK Vision 2023 Insights”. In the study, it was determined that the structural features of the Y and Z generations were not taken into consideration in the strategic plans developed by both the Ministry of National Education and TÜBİTAK.

The above studies show that Generation Z will differ in business life compared to previous generations, and will work more personalized, and will work with technology and business understanding. When the literature was examined in general, it is noteworthy that there are few studies on the business intentions of the Z generation. This study will be a guiding work for the scientific world and other related researchers, human resources managers, and educators on the subject.

## **Hypothesis**

The following main and sub-hypotheses have been developed for testing:

H1: There is a substantial difference between entrepreneurship, professionalism, and leadership intention levels according to the socio-demographic characteristics of the Z generation.

### ***Sub Hypothesis***

H1: 1.1. There is a difference between entrepreneurship, professionalism, and leadership intention levels in terms of the gender of the Z generation.

H1: 1.2. There is a difference between the education level of the Z generation and the levels of entrepreneurship, professionalism, and leadership intention.

H1: 1.3. There is a difference between entrepreneurship, professionalism, and leadership intention levels in terms of work experience of the Z generation.

H1: 1.4. There is a difference between a family of entrepreneurship, professionalism, and leadership intent in terms of the presence of entrepreneurs in the family of the Z generation.

H1: 1.5. There is a difference between entrepreneurship, professionalism, and leadership intention levels in terms of the presence of entrepreneurs in the immediate vicinity of the Z generation.

H1: 1.6. There is a difference between entrepreneurship, professionalism, and leadership intention levels in terms of the income level of a family of the Z generation.

## Method

As the population of this study, generation Z in high schools and vocational schools of higher education in the Kahta district of Adiyaman province has been considered. However, a simple random sampling method was used for the sampling of individuals in the generation Z high schools and vocational schools of higher education.

In Kahta district, there are 13 high schools (11 high schools in district centers and two multi-program high schools outside the district center) affiliated to the Directorate of National Education and one vocational school of higher education affiliated to Adiyaman University. As of 2018, 1360 students were enrolled at the Kahta vocational school of higher education (<https://obs.adiyaman.edu.tr>; Access Date: 01.10.2018). The total number of students in 11 high schools in Kahta district center is 7223 (<http://www.meb.gov.tr> Access Date: 03.10.2018).

When the above information is evaluated together, the population of this study consists of 8583 people. The number of samples selected by a simple random method consists of 563 generation Z. Accordingly, 6.5% of the population has been reached.

Table 1 - Sample Sizes for  $\alpha = 0.05$

The Size of the Universe	$\alpha = 0.03$ sampling error			$\alpha = 0.05$ sampling error			$\alpha = 0.10$ sampling error		
	$p=0.5$ $q=0.5$	$p=0.8$ $q=0.2$	$p=0.3$ $q=0.7$	$p=0.5$ $q=0.5$	$p=0.8$ $q=0.2$	$p=0.3$ $q=0.7$	$p=0.5$ $q=0.5$	$p=0.8$ $q=0.2$	$p=0.3$ $q=0.7$
<b>100</b>	92	87	90	80	71	77	49	38	45
<b>500</b>	341	289	321	217	165	196	81	55	70
<b>750</b>	441	358	409	254	185	226	85	57	73
<b>1000</b>	516	406	473	278	198	244	88	58	75
<b>2500</b>	748	537	660	333	224	286	93	60	78
<b>5000</b>	880	601	760	357	234	303	94	61	79
<b>10000</b>	964	639	823	370	240	313	95	61	80
<b>25000</b>	1023	665	865	378	244	319	96	61	80
<b>50000</b>	1045	674	881	381	245	321	96	61	81
<b>100000</b>	1056	678	888	383	245	322	96	61	81
<b>1000000</b>	1066	682	896	384	246	323	96	61	81
<b>100 Million</b>	<b>1067</b>	<b>683</b>	<b>896</b>	<b>384</b>	<b>245</b>	<b>323</b>	<b>96</b>	<b>61</b>	<b>81</b>

Source: ([Yazicioglu & Erdogan, 2004, p. 50](#))

For the sample size in this study, the information in Table 1 was examined, and it was concluded that the sample was sufficient, considering the limitations of the research.

## Data Collection and Analysis

It was aimed to reach the data from the primary source by using the face-to-face survey method; the questionnaire forms prepared were primarily subjected to a pilot application. The reliability of the questionnaire was established before doing the full-scale study. A questionnaire consisting of two parts was used as a data collection method. The first part of the survey is about demographic features consisting of 6 questions. The second part consists of 11 issues related to entrepreneurship, professionalism, and leadership intention scale of Generation Z.

The scale of entrepreneurship, professionalism, and leadership intent used in the study is the scale in the survey conducted by Oner et al. (2016). EPL (E: Entrepreneurship, P: Professionalism, L: Leadership) scale is a scale developed by Chan et al. (2012). The EPL scale consists of three essential factors: "motivation, intention, and effectiveness." However, the Entrepreneurship, professionalism, and leadership intent scale in this study measures only the "intention" factor from these three factors of the EPL scale. The scale of Entrepreneurship, Professionalism, and Leadership (EPL) was verified for Turkish students by Oner et al. (2016). The compliance of the original scale with the Turkish students was analyzed by two-step confirmatory factor analysis, and the scale was rearranged in a good fit. Generally, Likert style scales were used to measure individuals' attitudes, perceptions, intentions, and so on, and in this study, Likert style scales were used. In this context, it was prepared with a 5-point Likert type scale ranging from 1 "Strongly Disagree" to 5 "Strongly Agree" and asked to answer these questions by giving a questionnaire. The questionnaire was applied in May and June 2018.

The direct interview was conducted with the 563 volunteers by using a simple random sampling technique at high schools and vocational schools of higher education in Kahta district, which is the research region. The data obtained were transferred to SPSS 22.0 program and analyzed. Also, in this research, 0.5% of the population has been reached.

The data set was created by coding the questions in the questionnaire form. The obtained data set was analyzed in the "SPSS 22.0". Before hypothesis testing, data were analyzed for normal distribution. The "Kolmogorov-Smirnov test determined that the data did not show a normal distribution ( $p \leq 0.05$ ). Besides, the "Skewness and Kurtosis Coefficients" of the data were calculated. Data was not normal distribution test, so, Mann-Whitney U and Kruskal Wallis H tests, was used to analyze the hypothesis.

The Cronbach's Alpha coefficient of the scale used in this research, consisting of 11 questions, was calculated, and this value was found to be 0.89. Accordingly, the scale can be said to be highly reliable (Kalayci, 2016, p.405), since its reliability value is between  $0.80 \leq \alpha < 1.00$ .

*Table 2 - Reliability Analysis Results*

Survey Question Groups	Question Number	Cronbach's Alpha
<b>Entrepreneurship Intention</b>	3	0,75
<b>Professionalism and Leadership Intention</b>	8	0,87
<b>All Survey Questions</b>	11	0,89

Also, the Cronbach's Alpha coefficient of the questions about the dimension of entrepreneurship intention, which constitutes the scale, was calculated, and this value was found to be 0.75. Accordingly, the scale of entrepreneurship intention was found to be quite reliable.

The Cronbach's Alpha coefficient of the questions about professionalism and leadership intention was calculated, and this value was found to be 0.87. Accordingly, the scale of professionalism and leadership intention was found to be highly reliable.

Table 3 - Reliability Analysis for Entrepreneurship, Professionalism and Leadership Intention Questions

Scale Questions	Cronbach's Alpha
1. After graduating with a consistent business thought, I intend to start my own business.	.880
2. I prefer to be an expert in a large and stable organization and to pursue a professional career.	.878
3. I plan to become a leader or manager in the future.	.880
4. I will be an entrepreneur after my education, and I am ready to do everything to reach my goal.	.879
5. I always dream of advancing or improving my profession, expertise, professional, and technical issues.	.882
6. My main career goal is to raise leaders and managers in organizations.	.884
7. My main career goal is; to be a technical expert or a professional in my field.	.874
8. In my future business life, I see myself as a leader / or manager of other employees.	.876
9. After graduation, I see myself as a professional or technical expert.	.880
10. I will start my own business in the next five years.	.886
11. I will start my own business in the next ten years.	.882

On the other hand, as can be seen in Table 3, the Alpha ( $\alpha$ ) coefficients of the 11 questions that constitute the scale of entrepreneurship, professionalism, and leadership intentions are between 0.87 and 0.88. Accordingly, it can be stated that the items forming the scale of entrepreneurship, professionalism, and leadership intent are highly reliable.

## Factor Analysis

The Barlett test and Kaiser-Meyer-Olkin (KMO) sample adequacy to determine if factor analysis can be used in the study. It can be said that the data set is suitable for factor analysis since it is  $0.920 > 0.50$  (Kalayci, 2016). Also, the Barlett test is meaningful (Sig.).

Table 4 - Number of Factors Related to Eigenvalue Statistics and Percentage of Variance Explained

Component	Initial Eigenvalues			Rotation Sums of Squared Loadings		
	Total	% of variance	Cumulative %	Total	% of variance	Cumulative %
1	5,254	47,768	47,768	3,877	35,248	35,248
2	1,021	9,282	57,049	2,398	21,801	57,049
3	796	7,238	64,287			
4	717	6,523	70,810			
5	584	5,313	76,123			
6	536	4,874	80,997			
7	489	4,445	85,442			
8	441	4,009	89,451			
9	415	3,769	93,220			
10	395	3,592	96,812			
11	351	3,188	100,000			

In Table 4, there are two factors with eigenvalues greater than 1. The first factor explains 35.2% of the total variance. The first and second factors together explain 57% of the total variance.

Also, the "Rotated Factor Matrix" seen in Table 5 is the final result of the factor analysis. As Kalayci (2016: 330) emphasizes, factor weight should be 0.30 and above for the number of data (observations) 350 and above. Since the amount of data of this study is 563, a factor of at least 0.30-factor weight was sought for the variables that constitute the scale of entrepreneurship, professionalism, and leadership intent. It is observed that the absolute value weights of all the variables that represent the scale of entrepreneurship, professionalism, and leadership intention are above 0.50 and between 0.57 and 0.79. According to this result, it was determined that the factor weights of entrepreneurship, professionalism, and leadership intent are quite good.

Variables with large weights under one factor were grouped. These variables can be called "Professionalism and leadership intention."

*Table 5 - Rotated Factor Matrix*

S/No	Entrepreneurship, Professionalism and Leadership Intention Variables	Component	
		1	2
1.	After graduating with a consistent business thought, I intend to start my own business.	.330	<b>.728</b>
2.	I prefer to be an expert in a large and stable organization and to pursue a professional career.	<b>.640</b>	.342
3.	I plan to become a leader or manager in the future.	<b>.722</b>	.188
4.	I will be an entrepreneur after my education, and I am ready to do everything to reach my goal.	<b>.570</b>	.418
5.	I always dream of advancing or improving my profession, expertise, professional, and technical issues.	<b>.630</b>	.253
6.	My main career goal is to raise leaders and managers in organizations.	<b>.699</b>	.101
7.	My main career goal is; to be a technical expert or a professional in my field.	<b>.760</b>	.264
8.	In my future business life, I see myself as a leader / or manager of other employees	<b>.720</b>	.285
9.	After graduation, I see myself as a professional or technical expert.	<b>.660</b>	.267
10.	I will start my own business in the next five years.	.173	<b>.795</b>
11.	I will start my own business in the next ten years.	.256	<b>.782</b>

Likewise, under the 2nd factor, "intending to start your own business after graduating with a consistent business idea (.728), intending to start your own business in the next five years (.795) or ten years (.782)", variables have the most significant weights. These variables can be named as "entrepreneurship intention."

Table 6 - Naming Factors

Variable No	Entrepreneurship, Professionalism and Leadership Intention Variables	FACTOR 1 (Professionalism and Leadership Intention)	FACTOR 2 (Entrepreneurship Intention)
2.	The desire to be an expert in a large and stable organization and to pursue a career as a professional.	.640	.342
3.	Planning to become a leader or manager in the future	.722	.188
4.	The desire to be an entrepreneur after training and this goal being ready to do everything to reach.	.570	.418
5.	The dream of progress or development in expertise, professional and technical issues throughout the business life	.630	.253
6.	Main career goal is to raise leaders and managers in organizations	.699	.101
7.	The main career desire is to be a technical expert or professional in his field	.760	.264
8.	To see himself as a leader / or manager in the future business life	.720	.285
9.	Seeing yourself as a professional or technical expert after graduation	.660	.267
1.	Intending to start your own business after graduating with a consistent business idea	.330	.728
10.	Intending to start your own business in the next five years	.173	.795
11.	Intending to start your own business in the next ten years	.256	.782

Also, according to the result of factor analysis, the resulting two-dimensional entrepreneurship, professionalism, and leadership intention scale are shown in detail in Table 6, together with the weight of each variable under the factor, and the mentioned "two-dimensional scale" was considered in the creation of the study's hypotheses.

51.5% of the study participants were female, and 48.5% were male students. 70.5% of the sample was in high school, and 29.5% continued their associate degree education. Also, it was determined that 45.6% of the participants had work experience, 54.4% had no work experience, 46.7% of the participants have entrepreneurs in their families, 53.3% of them have no entrepreneurs. On the other hand, it was observed that 77.3% of the participants were entrepreneurs in their immediate environment, such as relatives and friends, and 22.7% of the participants were not entrepreneurs in their immediate environment.

Besides, 36.6% of the Z generation participating in the research in terms of the monthly income levels of the family of the participants were found to be at the minimum wage and below and 41.4% at the between over minimum wage and 3.000-TL. Moreover, in terms of monthly income levels of the family of the participants, it was found that 16.5% had monthly income between 3.001-TL and 5.000-TL, and 5.5% had 5.000-TL and above.

Neutral scores of entrepreneurship intention and professionalism and leadership intention scales were determined as 3. Accordingly, it can be said that the generation Z who participated in the research is at a positive level because the average intention level of entrepreneurship ( $3.32 > 3.00$ ) and the average level of professionalism and leadership ( $3.41 > 3.00$ ) are above neutral points. However, it was observed that the average level of professionalism and leadership intention of the Z generation participating in the research was higher than the average level of entrepreneurship ( $3.41 > 3.32$ ).

Spearman rho correlation test was used to analyze the direction and severity of the relationship between entrepreneurial intention and professionalism and leadership intention levels since the data set obtained within the scope of the study did not show normal distribution characteristics. Correlation analysis results are given in Table 7 below.

There is a positive correlation ( $r = 0.601$ ), which is moderately significant ( $p < 0.01$ ) relationship between entrepreneurship intention and professionalism and leadership purpose of the Z generation participating in the study. Accordingly, it can be said that the level of professionalism and leadership will increase as the level of entrepreneurship intention increases, and the level of professionalism and leadership will decrease as the level of entrepreneurship intention decreases.

Table 7 - Relationship Analysis with Spearman rho Correlation Test

Spearman rho Korelasyon Test		Entrepreneurship Intention	Professionalism and Leadership Intention
<b>Entrepreneurship Intention</b>	Correlation Coefficient	1,000	,601**
	Sig. (2-tailed)	.	,000
<b>Professionalism and Leadership Intention</b>	Correlation Coefficient	,601**	1,000
	Sig. (2-tailed)	,000	.

\*\*. Correlation is significant at the 0.01 level (2-tailed).

However, it can be stated that as the level of professionalism and leadership intention increases, the level of entrepreneurship intention will increase, or as the level of professionalism and leadership decreases, the level of entrepreneurship will decrease.

## Hypothesis Testing

In this part of the study, the hypotheses regarding whether there is a significant difference between entrepreneurship, professionalism, and leadership intention levels according to the socio-demographic characteristics of gender, education level, work experience, etc. of the Z generation are tested respectively. Mann-Whitney U and Kruskal Wallis H tests were used to test the hypotheses.

### Gender

The results of the Mann-Whitney U test regarding whether entrepreneurship intention levels and professionalism and leadership intention levels differ according to the gender of the Z generation participating in the study are presented in Table 8.

It was revealed that there were significant differences between entrepreneurship intentions according to the gender of the generation Z who participated in the study ( $p = 0.024 < 0.05$ ). When the Mean Rank values (ordered average values) are compared, it is seen that Z generation male students have higher levels of entrepreneurship intention than Z generation female students.

On the other hand, there was no significant difference between the levels of professionalism and leadership intention according to the gender of the generation Z who participated in the study ( $p = 0.385 > 0.05$ ). According to the table, it can be said that this difference is not statistically significant in terms of the values received by gender. However, it can be seen that there is a clear difference between the ordered average values.

Table 8 - Results of the Mann-Whitney U Test in Terms of Gender

Gender		N	Mean Rank	Mann-Whitney U	z	Asymp. Sig. (2-tailed)
<b>Entrepreneurship Intention Level</b>	Female	290	267,11	35266,000	-2,253	,024
	Male	273	297,82			
	Total	563				
<b>Professionalism and Leadership Intention Level</b>	Female	290	276,23	37911,000	-,869	,385
	Male	273	288,13			
	Total	563				

So, H1: 1.1. "There is a difference between entrepreneurship, professionalism, and leadership intention levels in terms of gender of the Z generation" hypothesis was partially accepted.

## Education Level

The results of the Mann-Whitney U test regarding whether entrepreneurship intention levels and professionalism and leadership intention levels differ according to the education level of the Z generation participating in the research are shown in Table 9 below.

Table 9 - Results of the Mann-Whitney U Test in Terms of Education Level

Education Level		N	Mean Rank	Mann-Whitney U	z	Asymp. Sig. (2-tailed)
<b>Entrepreneurship Intention Level</b>	High school	397	264,01	25807,000	-4,084	,000
	Associate	166	325,04			
	Total	563				
<b>Professionalism and Leadership Intention Level</b>	High school	397	267,58	27226,500	-3,257	,001
	Associate	166	316,48			
	Total	563				

As can be seen in Table 9, it has been revealed that there are significant differences between entrepreneurship intentions according to the education level of the Z generation participating in the research ( $p = 0.000 < 0.05$ ). When the average ranks are compared, it is seen that the Z generation students who have received associate degree education have higher levels of entrepreneurship intention than the Z generation students who receive high school education.

Also, a significant difference was found between professionalism and leadership intention levels according to the educational level of the Z generation participating in the research ( $p = 0.01 < 0.05$ ). According to the ordered average values, it was revealed that Z generation students who received associate degree education had higher levels of professionalism and leadership intention than Z generation students who received high school education. According to these results, it can be said that the increase in education level has a positive effect both on the entrepreneurial intention of the Z generation and on the professionalism and leadership intention.

H1: 1.2., "There is a difference between the education level of the Z generation and the levels of entrepreneurship, professionalism and leadership intent," hypothesis was accepted.

## Work Experience

The results of the Mann-Whitney U test regarding whether entrepreneurship intention levels and professionalism and leadership intention levels differ according to the work experience of Generation Z participating in the research are shown in Table 10 below.

There was a significant difference between entrepreneurship intentions according to the work experience of Generation Z participating in the study ( $p = 0.000 < 0.05$ ). When the ordered average values are compared, it is seen that Z generation students with work experience have higher levels of entrepreneurship intention than Z generation students without work experience.

Table 10 - Results of the Mann-Whitney U Test in Terms of Work Experience

	Work Experience	N	Mean Rank	Mann-Whitney U	z	Asymp. Sig. (2-tailed)
<b>Entrepreneurship Intention Level</b>	Available	257	317,21	30272,000	-4,735	,000
	Not Available	306	252,43			
	Total	563				
<b>Professionalism and Leadership Intention Level</b>	Available	257	310,91	31890,000	-3,871	,000
	Not Available	306	257,72			
	Total	563				

Also, a significant difference was found between professionalism and leadership intention levels according to the work experience of the Z generation participating in the research ( $p = 0.00 < 0.05$ ). According to the ordered average values, it was revealed that Z generation students with work experience had higher levels of professionalism and leadership intention than Z generation students without work experience. According to these results, it can be said that work experience has a positive effect on generation Z's intention as well as professionalism and leadership intention.

H1: 1.3., "There is a difference between entrepreneurship, professionalism, and leadership intention levels in terms of work experience of the Z generation," hypothesis was accepted.

## Presence of Entrepreneurs in the Family

The results of the Mann-Whitney U test regarding whether entrepreneurship intention levels and professionalism and leadership intention levels differ in terms of the existence of entrepreneurs in the family of Z generation participating in the research are shown in Table 11 below.

There are no significant differences between entrepreneurship intentions in terms of the presence of entrepreneurs in the family of Z generation participating in the research ( $p = 0.198 > 0.05$ ).

Table 11 - Results of Mann-Whitney U Test in Terms of the Presence of Entrepreneurs in the Family of Z Generation

	N	Mean Rank	Mann-Whitney U	z	Asymp. Sig. (2-tailed)	
<b>The Presence of Entrepreneurs in the Family</b>						
	Yes	263	291,37	36984,500	-1,288	,198
	No	300	273,78			
<b>Entrepreneurship Intention Level</b>	Total	563				
	Yes	263	290,99	37085,000	-1,230	,219
	No	300	274,12			
<b>Professionalism and Leadership Intention Level</b>	Total	563				

Also, no significant difference was found between professionalism and leadership intention levels in terms of the presence of entrepreneurs in the family of Z generation participating in the study ( $p = 0.219 > 0.05$ ).

According to these results, it can be said that the fact that the family entrepreneurial background does not make a significant difference both on the entrepreneurship intention of the Z generation and on the professionalism and leadership intention.

H1: 1.4., "There is a difference between a family of entrepreneurship, professionalism and leadership intent in terms of the presence of entrepreneurs in the family of the Z generation," hypothesis was rejected.

### Presence of Entrepreneurs in the Immediate Vicinity

As can be seen in Table 12, there were no significant differences in entrepreneurship intentions in terms of the presence of entrepreneurs in the immediate vicinity of Z generation participating in the study ( $p = 0.901 > 0.05$ ).

*Table 12 - Mann-Whitney U Test in Terms of the Presence of Entrepreneurs in the immediate vicinity of Z Generation*

<b>The Presence of Entrepreneurs in the Immediate Vicinity</b>	<b>N</b>	<b>Mean Rank</b>	<b>Mann-Whitney U</b>	<b>z</b>	<b>Asymp. Sig. (2-tailed)</b>
<b>Entrepreneurship Intention Level</b>	Yes	282,46	27639,000	-,125	,901
	No	280,43			
	Total	563			
<b>Professionalism and Leadership Intention Level</b>	Yes	283,27	27287,000	-,342	,732
	No	277,68			
	Total	563			

Also, no significant difference was found between professionalism and leadership intent levels in terms of the presence of entrepreneurs in the immediate vicinity of Z generation participating in the study ( $p = 0.732 > 0.05$ ). According to these results, it can be said that the presence or absence of entrepreneurs in their immediate surroundings does not make a significant difference both on the entrepreneurial intention and on the professionalism and leadership intention of the Z generation.

In this context, H1: 1.5., "There is a difference between entrepreneurship, professionalism and leadership intent levels in terms presence of entrepreneurs in the immediate vicinity of the Z generation," hypothesis was rejected.

### Family Income Level

The results of the Kruskal Wallis H test regarding whether entrepreneurship intention levels and professionalism and leadership intention levels differ in terms of the income level of the family of Z generation who participated in the study are shown in Table 13 below.

There are no significant differences found between entrepreneurship intentions in terms of the income level of the family of generation Z who participated in the study ( $p = 0.187 > 0.05$ ).

*Table 13 - Kruskal Wallis H Test Results Regarding Entrepreneurship, Professionalism and Leadership Intent Differences of Generation Z in terms of Family Income Level*

<b>Income Level</b>	<b>N</b>	<b>Mean Rank</b>	<b>Chi-Square</b>	<b>df</b>	<b>Asymp. Sig.</b>
<b>Entrepreneurship Intention Level</b>	Minimum wage and below	206	299,96	4,915	3 ,178
	Between over minimum wage and	233	277,32		
	Between 3.001.-TL and 5.000.-TL	93	263,31		
	5.001.-TL and above	31	253,90		
	Total	563			
	Minimum wage and below	206	291,81	2,643	3 ,450

<b>Professionalism and Leadership Intention Level</b>	Between over minimum wage and Between 3.001.-TL and 5.000.-TL 5.001.-TL and above Total	233 93 31 563	272,64 274,43 309,90
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Also, no significant difference was found between professionalism and leadership intention levels in terms of the income level of the family of the Z generation who participated in the study ( $p = 0.450 > 0.05$ ). According to these results, it can be said that the fact that the income level of the family increases or decreases does not make a significant difference on the entrepreneurial intentions of the Z generation as well as on the professionalism and leadership intentions.

So, H1: 1.6., "There is a difference between entrepreneurship, professionalism, and leadership intent levels in terms of the income level of a family of the Z generation," hypothesis was rejected.

## Conclusion

A significant difference between the socio-demographic characteristics of the Z generation participating in the study between entrepreneurship, professionalism, and leadership intention levels in terms of gender, education level, and work experience was found. However, there was no significant difference between entrepreneurship, professionalism, and leadership intent levels in terms of whether or not the family or immediate vicinity of Z generation is an entrepreneur or not, and in terms of the family income level is high or low.

According to these results, the central hypothesis of the study, The hypothesis that H1: "There is a significant difference between entrepreneurship, professionalism and leadership intention levels according to the socio-demographic characteristics of the Z generation," was partially accepted.

This result does not support the determination that family professions in the study by Yuksel et al. (2015) positively affect entrepreneurship tendency.

Besides, with this study, it was found that the entrepreneurship intention level (3.32) and professionalism and leadership intention level (3.41) of the Z generation participating in the research were positive.

On the other hand, this study was limited to the Z generation and Adiyaman Kahta district. In other studies to be conducted on this subject, demographic factors that are not emphasized in this study, which are valid on entrepreneurship, professionalism, and leadership intentions of other generations, can be examined in more detail by considering cultural differences.

According to the result of the study, as a suggestion; in cooperation with the University, the Directorate of National Education, Chamber of Industry and Commerce and Chamber of Merchants, joint projects can be developed to increase the entrepreneurship, professionalism and leadership intentions of the Z generation, the Alpha generation following the Z generation, and the next generations. Also, entrepreneurship training can be provided by KOSGEB for generation Z, who is still in high school education. As another suggestion, as mentioned by Seymen (2017), the structural features of the generations can be taken into consideration in the strategic plans developed by the Ministry of National Education and TUBITAK.

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# Ethical Leadership and Employee Ethical Behavior: A Moderated Mediation Mechanisms

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## Abstract

**Purpose-** Based on the ongoing unethical scandal in the organizations, this study aims to explain the relationship between ethical leaders and their followers' ethical behavior by explaining the underlying mechanisms.

**Design/Methodology-** Data were collected through a structured questionnaire from the employees working in companies that produce fast-moving consumer goods. Three hundred sixty-nine samples were taken to study the proposed relationships.

**Findings-** Results showed ethical leaders positively influence followers. Perceptual and reflective moral attentiveness positively mediates between ethical leadership and ethical behavior of employees. Moral awareness negatively moderates between ethical leadership and followers' ethical behavior via reflective moral attentiveness, whereas moral awareness does not moderate the relationship.

**Practical Implications-** Following the call for determinants of ethical behavior, this study provides insights for the managers to foster ethical behavior at workplace.

## Introduction

Leadership in the workplace can influence followers to avoid unethical behaviors; however, despite having ethical compliance programs, organizations are still incurring losses of billions of dollars annually merely due to employees' unethical practices. Recently, scholars have shed light on the losses incurred by organizations just from misreporting and fraudulent activities by employees. For instance, according to Association of Certified Fraud Examiners (2018), organizations suffered a loss of more than \$7 billion globally merely through misreporting and fraudulent activities. Furthermore, (Lavion, Rivera, & Elliott, 2018) show that bribery and corruption remained the top causes of loss of billions annually. Over the past decades, scholars have focused on why individuals adopt unethical behavior at the workplace despite having ethical compliance programs. As such, understanding the psychological processes fueling ethical behavior is of both theoretical and practical importance.

Previous studies showed the factors that why individuals adopt unethical behavior or instead engaging in ethical behavior at the workplace. For instance, extant literature sheds light on antecedents of unethical behaviors, abusive supervision (Hannah et al., 2013), moral disengagement (Moore, Detert, Klebe Treviño, Baker, & Mayer, 2012), moral identity (McFerran, Aquino, & Duffy, 2010). Consequently, scholars turned their focus towards the drivers of ethical behavior at the workplace, such as codes of conduct (Weaver & Treviño, 1999), ethical Leadership (Brown & Treviño, 2006; Brown, Treviño, & Harrison, 2005; Lu & Lin, 2014), and ethical climate (Mayer, Kuenzi, & Greenbaum, 2010). Particularly for ethical leadership, scholars have focused on social values and moral development to promote ethical behavior at work (Brown & Treviño, 2006). For ethical behavior at the workplace ethical leadership is considered as the most influential factor that can stimulate its followers. This study explores why and when ethical leadership and individuals' characteristics is associated with the tendency to engage in ethical practices.

Recent research has provided insights that explain why and when ethical leaders stimulate their followers to emulate normative behaviors; there is a shortage of research that explains the psychological process from which ethical leaders stimulate their followers' ethical behavior at the workplace. Such psychological insights not only advance the behavioral ethical literature but also provides a different perspective on the employer-employee relationship. Such exploration also allows a better understanding of the chain of causality behind the association among variables (Brown & Treviño, 2006). For these reasons, current research is going to clarify the chain of effects of ethical leaders on their followers' ethical behavior by proposing multiple mediations and moderated mediation mechanisms. Drawing from social learning theory, the authors posit that ethical leaders stimulate ethical behavior through mediating mechanisms of moral attentiveness (Bandura, 1971).

Further, studies explaining the potential moderator between ethical leadership and ethical behavior are at its infancy, and ethical leadership simulation is mainly dependent on the contextual factors (Moore et al., 2012). For this, studies are now exploring the potential boundary conditions of ethical leadership (Babalola, Stouten, Camps, & Euwema, 2019; Kalshoven, Den Hartog, & de Hoogh, 2013). However, quite a few numbers of studies have proposed the moderating relationship between ethical leadership and employees' ethical behavior (Farooq & Rabie, 2016). Within the social learning theory, the behavior of an individual is a function of individual and environmental influence (Bandura, 1971). Moreover, Bandura (1977) suggests that in observational learning, awareness is important and necessary before an individual model someone's behavior. Therefore, we expect that moral awareness may serve as a potential moderator between ethical leadership and moral attentiveness. Authors suggest that the relationship of ethical leadership with moral attentiveness will become stronger when followers have more awareness of the ethical concerns at the workplace.

This study proposed a moderated mediation model to address our research question (Figure 1). First, following the call of Lu and Lin (2014) to investigate the underlying alternative mediating mechanism through ethical

leaders influence their followers. We suggest that the ethical behavior of employees gets influenced by ethical leadership via two mediating mechanisms (reflective moral attentiveness, perceptual moral attentiveness). Second, by adding boundary condition, we further posit that moral awareness can be a moderating factor between ethical leadership with reflective and perceptual moral attentiveness. Third, the current study was conducted in a developing world context, the South Asian region, where statistics of unethical behaviors are alarming. This study provides significant insights into the social influence process at the workplace to promote ethical behavior at the workplace.

## Literature Review and Hypothesis

### Ethical leadership and followers' ethical behavior

Social Learning Theory explains to minimize unethical practices at the workplace (Bandura, 1977; Brown et al., 2005). Ethical leadership is defined as “the demonstration of normatively appropriate conduct through personal actions and interpersonal relationships, and the promotion of such conduct to followers through two-way communication, reinforcement, and decision-making” (Brown et al., 2005). They explain ethical leaders are fair, caring, and trustworthy from the employees' perspective. Ethical leaders are considered role models as they make decisions on socially acceptable normative behaviors that can be imitated by their followers (Brown & Treviño, 2006). Extant literature shows ethical leaders are significantly impacting voice behavior (Qi & Ming-Xia, 2014), moral judgment (Steinbauer, Renn, Taylor, & Njoroge, 2014), knowledge sharing behavior (Lei, Do, & Le, 2019; Lei, Ha, & Le, 2019) and innovative work behaviors (de Jong & Den Hartog, 2007). Although existing studies provide insights on the importance of ethical leadership at the workplace, however, the existing body of knowledge is fragmented and silent on the potential contagion effects of ethical leaders; that why and when ethical leaders promote ethicality among followers? (Lu & Lin, 2014).

In organizations, leaders' behavior creates social norms and behavioral expectations among their followers (Lester, Vogelgesang, Hannah, & Kimmey, 2010), and such values, expectations, and norms affect the attitudes and behaviors of employees. Individuals at the workplace cannot adopt unethical behavior until and unless they have a feeling that their leaders treat them fairly (Mayer et al., 2010). For these reasons, ethical leaders portray optimistic self and follow their normative behavior, positive reinforcements, and positive characteristics towards stimulating attitudes and behaviors of followers. Therefore, the authors suggest a significant relationship of ethical leadership with ethical behavior as below.

*Hypothesis 1: There is a positive relationship between ethical leadership and employee ethical behavior.*

Authors further suggest ethical leaders stimulate followers' ethical behavior through intervening mechanisms of reflective and perceptual moral attentiveness at the workplace.

### The mediating role of moral attentiveness

Moral attentiveness is “the extent to which an individual chronically perceives and considers morality and moral elements in his or her experiences” (S. J. Reynolds, 2008). Concepts related to ethicality can be taken as a cognitive framework that is typically found in the employees having moral attentiveness. Such a mental framework ultimately may lead to the ethical assessment of incoming informational cues from others (S. J. Reynolds, 2008; S. J. Reynolds, Leavitt, & DeCelles, 2010). From the perspective of Social Learning Theory (Bandura, 1977), followers may adopt the practices of their superiors, and therefore accredit more attention to informational/observational cues and ethical aspects. We suggest that ethical leadership can influence employees' ethical behavior through moral attentiveness because ethical leadership stimulates their followers' attention towards ethical direction by showing them normative behavior to understand and address ethical complexities, concerns, and standards (Zhu, Treviño, & Zheng, 2016). Individuals having a higher level of

moral attentiveness are aware of the moral consequences of informational cues, and they are also alerting to ethically charged situations (Culiberg & Mihelič, 2016; Miao, Eva, Newman, Nielsen, & Herbert, 2019).

Extant literature shows two components of moral attentiveness: reflective and perceptual moral attentiveness. As far as this facet of moral attentiveness is concerned, reflective moral attentiveness individual regularly considers ethical matters (Miao et al., 2019; S. J. Reynolds, 2008; Whitaker & Godwin, 2013). Social learning theory within the context of organizations Bandura (1977) argues that as leaders are considered an authority and power symbols in an organization, they are the ones who employees look up, observe and adopt practices. Indulging employees into decision-making based on ethical principles and regularly highlighting the significance of ethics for their behaviors and decisions, employees may start focusing and considering this behavior appropriate that may reflect upon their daily lives (Brown & Treviño, 2006; Brown et al., 2005) and they are more prone towards ethical behavior at the workplace.

Whereas, in perceptual moral attentiveness, individuals recognize ethical aspects in daily experiences and primarily concerns information coding (S. J. Reynolds, 2008; Whitaker & Godwin, 2013). At the workplace, ethical leadership creates an ethical climate to minimize misconducts (Mayer et al., 2010), which can generate the perception in the minds of its followers that there are not many chances of occurrence unethical behavior; therefore, employees working under ethical leadership may not be exposed to more ethical challenges because of holding strong ethical standards. This may affect employee's daily experiences, and ultimately this perceptual moral attentiveness leads toward ethical behavior at the workplace.

Moreover, moral attentiveness varies from individual to individual, (M. Reynolds, 1998) and leaders can influence them to increase the level of their moral attentiveness (M. Reynolds, 1998). We posit that ethical leaders can influence their follower's moral attentiveness because of the characteristics they have in their personalities. Ethical leaders are the ones who will regularly communicate with employees regarding their moral dilemmas, set ethical standards, and provide them feedback about ethical decisions. While confronting ethical dilemmas or challenges at the workplace, ethical leaders are the ones who guide and explain their moral values to take action and decisions; they provide insightful and constructive feedback to their employees and provide directions that how to handle such challenges or ethical dilemmas at the workplace. Such a strong focus on dealing with the ethical dilemma at the workplace from ethical leaders, there is a trickle-down effect on employees as they start emulating the practices of their leaders and become more attentive to ethical challenges and dilemmas at the workplace. This is because ethical leaders are credible and legitimate actors in the workplace. Therefore, employees emulate the practices of their leaders in ethical dilemmas and challenges as they are the one whose actions are observed at the workplace, and ultimately leads towards ethical behavior at the workplace. Moreover, ethical leadership seems to be concerned about employees' development and accomplishments and may serve in their best interests (Brown et al., 2005). We argue that employees specifically feel attentive while doing their work by maintaining ethical standards because ethical leader him/herself enacts these ethical standards. As a result, employees become more morally attentive to perform work ethically. It seems that the trickle-down effect of ethical leadership would be better when employees feel confident to behave ethically, allowing moral attentiveness to be viewed as a filter through which such trickledown effect passes. Authors proposed that:

*Hypothesis 2a: There is a positive relationship between ethical leadership and perceptual moral attentiveness.*

*Hypothesis 2b: Perceptual moral attentiveness serves as a mediator between ethical leadership and employee ethical behavior.*

*Hypothesis 3a: There is a positive relationship between ethical leadership and reflective moral attentiveness.*

*Hypothesis 3b: Reflective moral attentiveness serves as a mediator between ethical leadership and employee ethical behavior.*

## Moral Awareness as a Moderator

It is “a person’s determination that a situation contains moral content, and legitimately can be considered from a moral point of view” (S. J. Reynolds, 2006). Moral awareness is a significant facet of moral decision-making and reasoning (Rest, 1986). It is widely accepted as an antecedent for an individual to teach moral consideration in its cognition. Extant literature on moral awareness suggested that vividness and saliency of any dilemma are the reasons that make individuals consider it as a moral issue. People usually give more consideration to those moral issues that are characterized as salient and vivid (Jones, 1991).

In an organizational context, we posit that when moral awareness among employees at the workplace is higher, there would be less impact on leaders on its followers’ ethical behavior. When moral awareness among employees at the workplace is lower, there would be a higher impact of leaders on its followers’ ethical behavior. Moreover, if moral awareness is higher, employees would know what is ethical and unethical in a particular situation, and they may have clear thoughts about the proper behavior to be adopted. The more employees are aware of moral issues, the less impact would be taken from their leadership through leaders’ modeling and rewarding behavior. Bandura (1977) suggests that attentiveness is remarkable while imitating the behavior of peers. Attention to the desirability towards ethical behavior can be taken from the behaviors of ethical leadership. However, it can be taken if there is a mutual perception of moral awareness. Therefore, if employees are more into moral awareness, they are more into adopting ethical behavior, which may result in them emulating the ethical leaders’ behavior for adopting ethical behavior as compared to the situation if there is a low level of moral awareness among employees at the workplace. This relationship is hypothesized below—Figure 1 details the proposed hypotheses.

*Hypothesis 4: Moral awareness moderates the mediating effect of perceptual and perceptual moral attentiveness between ethical leadership and followers’ ethical behavior that mediating effect of moral attentiveness is weaker when moral awareness orientation is high than when it is low.*

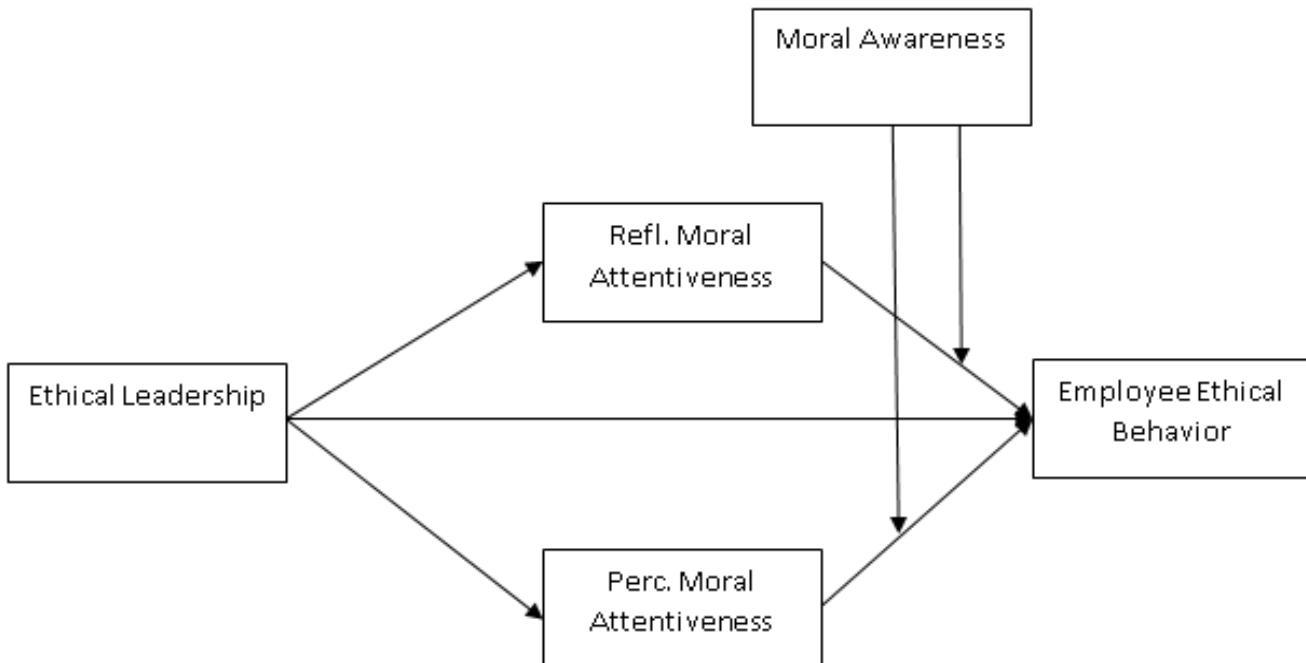


Figure 1 - Theoretical Framework

## Methods

### Sample and Procedure

The questionnaire was developed for the collection of data from employees of private-sector organizations that manufacture consumer goods in Pakistan. We identified and contacted 22 organizations and contacted their human resource departments to seek approval for data collection after explaining the objectives of our study. Of those 22 companies, 16 were willing to participate in the study, since disclosure of such information indicates involvement in fundamental topical issues. The author personally visited the companies for data collection after getting approval from the HR departments. To reduce the social desirability bias effect, the researcher stressed about confidentiality and anonymity of data, both verbally and through the cover letter that was attached to the questionnaire (Chung & Monroe, 2003). The response rate from the selected organizations varied from 16% to 96%. Three hundred eighty-nine responses were successfully gathered; 20 questionnaires have missing values; therefore, they were discarded. The final sample to analyze the data is of 369 employees. Out of 369 respondents, 75% were male. 69.5% were less than the age of 40 years. Around 78% belong to the low functional management positions (lower management), and 22% of respondents were engaged in functional-level job responsibilities Table 1.

Table 1 - Demographic Characteristics

Demographics		Percentage%
<b>Age</b>	18-28 years	23.5
	29-40 years	46.0
	More than 40 years	30.5
<b>Gender</b>	Female	25.0
	Male	75.0
<b>Education</b>	Did not complete Bachelor	29.0
	Bachelor	46.0
	Master	25.0
<b>Management Level</b>	Non-Management	78.0
	Lower-Level Management	22.0
<b>Job Duration(years)</b>	0 to 5	39.0
	6 to 10	47.0
	Greater than 10	14.0

### Measures

To measure ethical leadership, authors relied on the ten-item instrument of Brown et al. (2005), as it corresponds to our operationalization of the ethical leadership construct. The instructions asked participants to respond to each item using their manager as the referent. Further, each item referred to the participant's "immediate boss." Employee ethical behavior was measured using Fraedrich (1993) six-item measure. Items are centered around the extent to which observed behaviors complied with or deviated from organizational policies, values, and norms. S. J. Reynolds (2008) five-item scale was used to measure perceptual and reflective moral attentiveness authors adopted S. J. Reynolds (2008) seven-item scale. Moral awareness was measured using Arnaud (2010) 3 item measure of ethical climate index, which is based on the ethical decision model of Rest (1986). 7-point Likert scale used, where 1 = *strongly disagree* and 7 = *strongly agree*.

## Data Analysis

### Confirmatory Factor Analysis: Validity and Reliability

For the assessment of measures' validity in the model, the authors performed Confirmatory Factor Analysis (CFA) with AMOS 24. For model validity, we computed three alternative models and compared their level of fit (Anderson & Gerbing, 1988): First (Table 2), all items were loaded on four constructs as a single factor (Model 1). Second, we computed a three-factor CFA regrouping the three dimensions of CSR in a single construct (Model 2). Finally, we assessed the fit of a five-factor CFA (Model 3). Whereas Models 1 and 2 returned a poor fit (Table 2), the four-factor CFA showed a good fit. The chi-square statistic is 1114.25 having a significance of .000, and 342 degrees of freedom ( $\chi^2/df = 3.25$ ), thus indicating a good fit (Kline, 2010). We examined Confirmatory Fit Index (CFI) is .92, and the Tucker–Lewis index (TLI) is .92; both are above their recommended levels of threshold values of 0.90 (Anderson & Gerbing, 1988; Hair, Anderson, Babin, & Black, 2010). Additionally, root means square error of approximation (RMSEA) has an acceptable threshold value .08, and CFA in this study showed a value of .07, which is lower. The chi-square difference test Table 2 revealed a five-factor model (Model 3) is good as compared to the alternative models (Model 1 and Model 2).

Table 2 - Alternative models: Model Fits

	Fit Indices				
	$\chi^2$	df	$\chi^2/df$	CFI	TLI
<b>Model 1: Single-Factor CFA</b>	6333.06	348	18.19	.41	.41
<b>Model 2: Three-Factor CFA</b>	2573.92	345	7.46	.78	.78
<b>Model 3: Five-Factor CFA</b>	1114.25	342	3.25	.92	.92

$\chi^2$  is Chi-square value, df degree of freedom

Then, to assess convergent validity, the authors assessed standardized regression weights related to all items on their observed factors. Standardized regression weights of items ranged between 0.67 to 0.92. Standardized regression weights higher than .60 establishes a reasonably high factor loading (Kline, 2010). Further assessment for the validity of Fornell and Larcker (1981) of our proposed model, this study adopted the approach of average variance extracted (AVE). The average variance extracted and squared correlations are presented in Table 3. Fornell and Larcker (1981) suggest AVE of each variable must be larger than the recommended value of .50, which is providing support for convergent validity in this study. For the discriminant validity of five factors in our model. We followed Fornell and Larcker (1981) procedure and compared the respective squared correlations between factors with the respective AVEs of the factors. The four constructs are different from each other as their AVE is higher than their squared correlations (see Table 3).

For the reliability of the scales, we relied on Cronbach's alpha. Scales have provided good reliability of the data with values ranging from .89 to .95 (see Table 3), which are higher than .70 threshold value (Nunnally, 1978).

Table 3 - Convergent and discriminant validity

Constructs	1	2	3	4	Cronbach's Alpha
1. Perceptual Moral Attentiveness	<b>0.75</b>				.95
2. Ethical Leadership	0.32	<b>0.53</b>			.92
3. Reflective Moral Attentiveness	0.37	0.39	<b>0.77</b>		.94
4. Employee Ethical Behavior	0.46	0.39	0.40	<b>.67</b>	.89

Notes: Bold diagonal values represent the average variance extracted (AVE)

The remaining value represents squared correlations

## Common Method Bias

Authors used methods of Podsakoff, MacKenzie, Lee, and Podsakoff (2003) for assessing common method bias. To compute Harman's one-factor test, we employed exploratory factor analysis and fixed all variables on one factor, which is 30.79% of the total variance. Second, for Common Latent Factor (CLF) test, we used CFA and constrained all the items for all dependent and independent variables to load on a single factor, which showed that our model only explained 28.04% of the common factor, which is under the standard value. Therefore, common method bias in our data is not a severe threat.

## Descriptive Statistics: Mean, standard deviation, and correlations

All components are positively correlated and are also positively associated with employee ethical behavior.

*Table 4 - Mean, standard deviation, and correlations*

Variables	Mean	St. deviation	1	2	3	4
<b>1. Perceptual Moral Attentiveness</b>	5.29	1.24				
<b>2. Ethical Leadership</b>	4.86	1.22	.37**			
<b>3. Reflective Moral Attentiveness</b>	5.53	1.27	.35*	.47*		
<b>4. Employee Ethical Behavior</b>	5.42	1.19	.46*	.44*	.43*	
<b>5. Moral Awareness</b>	3.96	1.71	-.09*	-.22**	-.12*	-.15**

N = 369, \*p < .05.

## Hypothesis Testing

We performed model testing in three steps. In the first step, we measured the direct relationship of independent constructs on dependent constructs. For the second phase, we calculated the specific direct effects by applying the phantom modeling approach Macho and Ledermann (2011) in AMOS 24. The moderated mediation of moral awareness was tested in the third phase using process macro v3.2 in SPSS (Preacher, Rucker, & Hayes, 2007). Table 6 shows the direct effects of independent variables on dependent variables. It was found during the analysis that ethical leadership has a positive effect on perceptual moral attentiveness ( $\beta = .32$ ) at a significance level of  $<.001$ ) and reflective moral attentiveness ( $\beta = .39, p < .001$ ) of employees at work. Furthermore, we tested the reflective and reflective moral attentiveness as mediators between ethical leaders and their followers' ethical behavior, which showed significant effect on ethical behavior. Significant direct effect provided support to measure the mediating effect between ethical leaders and their followers' ethical behaviors.

Iacobucci, Saldanha, and Deng (2007) stated that it is recommended for mediating analysis that the direct and indirect paths to be checked at the same time so that the estimate of the proposed effect can be obtained while partialling out the effect of other relationships in the model. For this reason, we applied SEM to incorporate the hypothesized indirect effects along with the direct effects of an independent variable on dependent variables. Proposed model showed good fit ( $\chi^2=1333.26, P < .001; df=345; \chi^2/df= 3.87; CFI=.90; TLI=.90; RMSEA=.08$ ). However, in pursuit of the best model fit, two alternative models were also tested and compared with the fit indices of the hypothesized model. Alternative models were developed by changing the positions of the two mediators from parallel to series. These alternative models include a double mediation instead of multiple mediations, as in our hypothesized model. The model fits these alternative models (Table 5) indicate that the hypothesized model produces better fit indices. We thus selected our hypothesized model for further interpretation.

Table 5 - Alternative Model fits

		Chi-sq	df	X <sup>2</sup> /df	CFI	TLI	RMSEA
Theorized SR Model	Model 1	1333.26	345	3.87	.90	.90	.080
Alternative Model 1: <b>EL → PMA → RMA → EB</b>	Model 2	1410.70	347	4.06	.89	.89	.090
Alternative Model 2: <b>EL → RMA → PMA → EB</b>	Model 3	1367.59	347	3.94	.90	.89	.089

The testing of our proposed model shows that all relationships are positively significant, as we hypothesized (Table 6). Results support hypothesis 1, ethical leaders influence followers' ethical behavior in the workplace. Moreover, Ethical leadership positively influences perceived perceptual moral attentiveness and reflective moral attentiveness (Hypothesis 2a and 3a). Similarly, hypothesis 2b and 3b are supported by the data as perceived ethical leadership influence employees' ethical behavior via mediating mechanisms of reflective and perceptual moral attentiveness. A significance level of the mediating relationships was calculated with 5000 bootstrap samples in AMOS 24.

### Specific Indirect Effects

As ethical leadership influences employees' ethical behavior through perceptual and reflective moral attentiveness, we are in a classic case of multi-mediation. We, therefore, performed a separate additional analysis to specify the indirect effect of both mediating paths separately (MacKinnon, 2000), which allows comparative analysis of the mediators to provide a better significance of the mediating mechanisms. The phantom model approach addresses this issue in SEM (Macho & Ledermann, 2011). Results showed the mediating impact of ethical leaders on ethical behavior is positive through perceptual moral attentiveness ( $\beta = .33$ ) at a significant level of  $< .001$  and reflective moral attentiveness ( $\beta = .27$ ) at a significance level of  $< .001$  (Table 6).

Table 6 - Direct and specific indirect effects

Independent	Dependent Variables				
	Direct Effects		Indirect effects on Ethical Behavior		
Variable	Perc. Moral	Refl. Moral	Ethical	Via Per. Moral	Via Refl. Moral
Ethical	0.32***	0.39***	0.22***	0.33***	0.27***
Leadership					
Perc. Moral			0.33***	--	--
Atten.					
Refl. Moral			0.21***	--	--
Atten.					

The cell values of the table show the standardized regression weights.

Notes: N: 369

\*\*\* Significant at 0.001

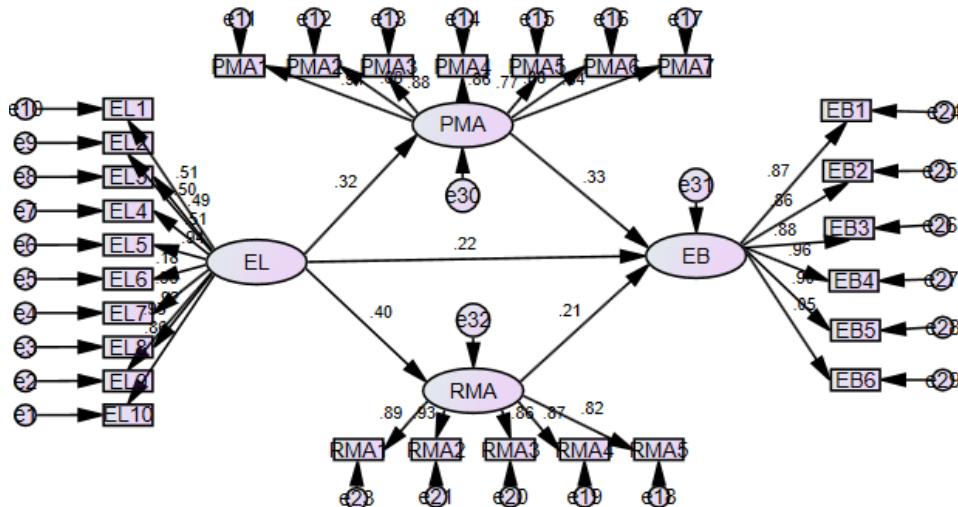


Figure 2 - Structural Regression Model

### Moderated Mediation Analysis

Ethical leaders influence followers' ethical behavior via moral attentiveness. Hypothesis 4 predicts the moderating effect between ethical leadership and ethical behavior through moral attentiveness. However, the mediating effect of moral attentiveness (reflective and perceptual moral attentiveness) was hypothesized to be moderated by moral awareness. Authors used Preacher and Hayes (2008) Process Macro v3.2 to test moderated mediation. Moderated mediation occurs when the conditional mediating mechanism of the independent variable on the variable (via perceptual and reflective moral attentiveness) varies around strength across the high and low level of moderating variable. We tested the moderating variable on conditional indirect paths. Their results are as follows in Table 7.

Table 7 - Moderation of moral awareness on the mediating paths of moral attentiveness

		Dependent Variable
Moral attentiveness dimensions		Independent Variable
Reflective	Constant	1.0782
	Ethical Leadership	0.301***
	Reflective Moral Attentiveness	0.531***
	Moral Awareness	0.33*
	Reflective Moral Attentiveness x Moral Awareness	-0.063*
Perceptual	Constant	2.9114***
	Ethical Leadership	0.296***
	Perceptual Moral Attentiveness	0.236*
	Moral Awareness	-0.181
	Perceptual Moral Attentiveness x Moral Awareness	0.025

N=369, \*  $p < 0.05$ , \*\*\*  $p < 0.001$

As is shown in Table 7, moral awareness negatively moderates ethical leaders' influence on followers' ethical behavior via reflective moral attentiveness (hypothesis 4a, Figure 2, interaction value = -0.06,  $p < 0.05$ ). In other words, ethical leaders influence followers' ethical behavior through reflective moral awareness is weaker when employees are high on moral awareness. However, moral awareness does not moderate between ethical

leadership and ethical behavior via perceptual moral attentiveness (hypothesis 4b, interaction value = 0.025, *not significant*).

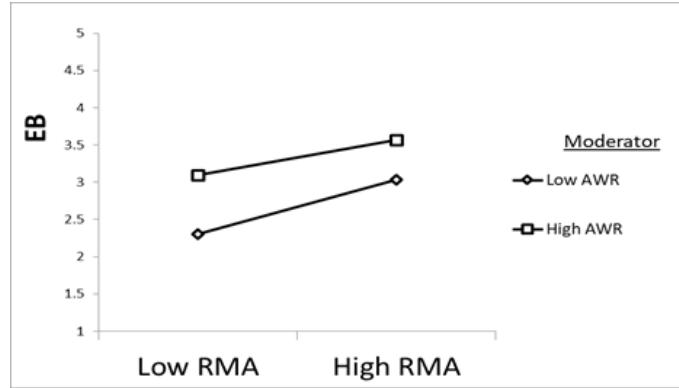


Figure 3 - Moderating Effect

## Results and Discussion

This study integrates social learning theory to explain the multi-mediation (reflective and perceptual moral attentiveness) along with the moderating relationship of moral awareness between ethical leadership and ethical behavior via a moderating mechanism of moral awareness. Using data from South Asia, particularly from Pakistan, the findings of this research revealed that ethical leadership is associated with employees' ethical behavior via mediating mechanisms of reflective and perceptual moral attentiveness whereas, moral awareness of employees determine the strength of these alternative mechanisms (reflective moral attentiveness).

## Theoretical Implications

Traditionally, the scholars were more focused on explaining how ethical leadership influences performance-related outcomes of employees, such as job performance (Bello, 2012), in-role performance (Zafar, 2013), and extra-role performance (Tu & Lu, 2016). However, research discussing the effect of ethical leaders on followers' ethical behavior is growing (Lu & Lin, 2014; Mayer et al., 2010). However, the underlying mechanisms between this relationship need to be further studied. The current study tests the underlying mediating mechanisms to explain why and when ethical leaders influence employees' ethical behavior. Mainly, current research contributes to the body of knowledge by demonstrating multiple mechanisms through which leaders' ethical behavior foster employees' ethical behaviors. That is, ethical leadership induces ethical behavior via moral attentiveness (reflective and perceptual). Through explicating these underlying mediating mechanisms, this research clarifies relationship Preacher and Hayes (2008) of ethical leadership with employees' outcomes, and give clearer insight that enables effective and efficient employees' management (Preacher et al., 2007).

The results complement this study by establishing, perhaps for the first time that moral attentiveness mediates through ethical leadership and ethical behavior. Indeed, ethical leadership literature to date showed that ethical behaviors are being influenced by ethical leadership (Lu & Lin, 2014). We are in accordance with Bandura (1977) that moral attentiveness can be increased through efforts to stimulate employees that they entail the capabilities to perform their duties, and it is also supported by previous studies (Walumbwa, Avolio, & Zhu, 2008; Walumbwa et al., 2011). Results indicate that ethical leaders successfully inculcate trust among employees that they can perform their duties ethically at workplace. It was also noted in the findings that modeling and vicarious experiences are important means in building the moral attentiveness of followers by presenting them as their role models. Ethical leadership provides both modeling and vicarious experiences that mount the moral attentiveness that enables the followers to act ethically at workplace.

Our results also indicated that ethical leaders have an impact on moral attentiveness that is significant and positive. It is entirely believable that ethical leaders treat their employees by giving them a sense that they are going to address an ethical dilemma by adopting normative behaviors (Brown & Treviño, 2006). Employees perceive that they will be treated fairly and this also lead employees to adopt such behaviors because they count on their leaders (Mayer, Kuenzi, Greenbaum, Bardes, & Salvador, 2009), as our findings also support, increases moral attentiveness of employees that ultimately leads towards ethical behavior at the workplace. Moreover, by focusing and reflecting more on ethical issues at the workplace, ethical leadership perceived by their employees as transmitting a critical ethical, emotional, and cognitive connection that enhances their moral attentiveness. Our findings show that through modeling Bandura (1971), ethical leaders become more effective in increasing the moral attentiveness of their followers because employees learn from their leaders by observing and emulating them. Extant literature also shows that moral attentiveness as a moderating variable between ethical leaders with followers' organizational deviance (van Gils, Van Quaquebeke, van Knippenberg, van Dijke, & De Cremer, 2015). Employees who are high on moral attentiveness, if unethical behavior from their leaders occurs, followers may like to engage in such similar activities. However, in the presence of ethical leadership, they are more into emulating the practices of their ethical leaders because, through perceptual moral attentiveness, employees may better able to understand moral dilemmas at the workplace. As they start perceiving such ethical dilemmas in a real-time situation not only in their daily lives but also in the workplace, they will be more attentive to perform and handle ethical issues by adopting the practices of their leaders.

Our study examines the impact of ethical leadership on employees' ethical behavior via moral attentiveness (reflective and perceptual) but also expands the boundary conditions of these relationships and mechanisms. Specifically, this paper shows that employees were having low moral attentiveness exhibit ethical behavior due to reflective moral attentiveness build from ethical leadership. On the other hand, those who are high on moral attentiveness may not get influenced by the actions of their leaders because they are already aware of handling such dilemmas at the workplace. More precisely, we found that the impact of ethical leadership on ethical behavior via reflective moral attentiveness varies across the low and high value of moral awareness such that at a low level of moral awareness, the indirect effect is higher and at a high level of awareness the indirect effect is weaker.

## Practical Implications

For deeper understanding, researchers have called what enhances the employees' ethical behavior at the workplace (Treviño, Weaver, & Reynolds, 2006). We established that moral attentiveness (reflective and perceptual) is a significant force in enhancing the followers' ethical behavior, and through ethical leadership, they are more prone to adopt normative behaviors. Therefore, firstly, organizations should seek to train or select leaders that embody ethical behavior. For instance, organizations can adopt a variety of tools that appreciate the concern for others' ethical standards and integrity. Such tools may include assessment center exercises, structured interviews, or integrity tests on relevant ethical dilemmas. Investment can be made on the ethical training of managers and leaders. Training could contain agendas, for instance, acting as ethical role models, supporting and rewarding their followers that show ethical behavior or ethical communication.

Consequently, by focusing on and selecting the leaders that embody ethical leadership, organizations can champion and develop ethical leadership values that can simultaneously act as an ethical manager as well as ethical people. Secondly, to increase ethical behavior, organizations should have such leadership that model and encourage ethical behavior along with the systems that restrain unethical behavior and reward ethical conduct. Managers need to practice and promote the procedures that emphasized on the importance of being ethical. Moreover, enforcement of rules and policies that restrain unethical behaviors should be duly enforced to show that organizations are serious about championing ethical conduct in the workplace.

## Future Directions and Limitations

We expected several limitations because of the quantitative and exploratory nature. First, cross-sectional design was employed due to which we are not able to induce certain conclusions because of the nature of constructs. Furthermore, employing single-source data, the threat of common method bias can arise in the analysis. Due to the model complexity, multi-source, or experimental design was neither feasible nor practiced. We followed Podsakoff et al. (2003) to handle such issues, we incorporated different approaches for common method variance, we tested common latent factor (CLF), which showed that common method variance was not a serious threat. It was not likely to bias the outcomes of the research. Therefore, we recommend that future studies should conduct experiments to develop more robust causal conclusions. Second, due to social desirability bias, all of the self-reported items could be contaminated. We took confidentiality assurances to our respondents to deal with this preventively (Chung & Monroe, 2003). Further, self-reporting was most suitable in the context of this research because constructs in this study involved perceptual variables.

## Conclusion

The current study has enlightened the prominence of ethical leadership that the leadership drives their followers to behave ethically or unethically at the workplace by acting as their role models. We, however, suggested a new perspective that explains the impact ethical leaders have on their follower's ethical behavior. Results showed that ethical leadership has a significant impact on followers' ethical behavior via perceptual and reflective moral attentiveness. Furthermore, moral awareness found to have a moderating effect between ethical leadership and followers' ethical behavior. Current research provides insights for managers to implement ethical compliance programs and to adopt normative practices to influence their followers to act ethically.

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